Yahoo Group Archive:
AT_Sprint (2017 — 2018)

Yahoo Group summary: AT Sprint

These Yahoo Groups messages were archived in WARC format by ArchiveTeam in 2018. This PDF was generated by Digital Library of Amateur Radio & Communications from the WARC files in 2026.

Date span: 2017-01-01 through 2018-01-25

Source WARC: at_sprint.3j9YU1Y.warc.gz

Source item: https://archive.org/details/yahoo-groups-2018-01-26T16-01-38Z-3cb13e

Messages included in this PDF: 956

Yahoo replaced the domain portions of email addresses with @... in the archived messages. Characters lost in Yahoo's archived text appear as ?.

Messages are presented in ascending Yahoo message-ID order. Gaps indicate records absent from the source WARC or messages omitted from this PDF as spam.

17386. RE: [AT_Sprint] Re: MTR4b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-01 04:31:46 UTC
From: <steve.kd1jv@...>
Topic: 17318 Message: 17386

I deleted the encoder routine as an encoder can’t be easily added with the new case.

The 16X2 display is physically the same size as the matrix display, but the characters are much bigger. See the picture on the LNR web site.

Steve

Can the rotary encoder be added to the new 4b as well? Will the 16 x 2 display have 5x7 matrix size like other two line LCD's or will it have text size the same as the 5b?

Thanks

John, N4HNO

17389. RE: [AT_Sprint] Can I order an MTR4b?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-01 16:32:01 UTC
From: <steve.kd1jv@...>
Topic: 17389 Message: 17389

Yes, go to www.lnrprecision.com
Steve,
Can I order an MTR4b?
If yes then how?
Bruce AF8F

17390. FS: Hendricks PFR-3

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-01 16:23:49 UTC
From: fghester@...
Topic: 17390 Message: 17390

Original PFR-3. Yellow Enclosure. Looks and works great. $175 shipped (CONUS only please). Non-smoking shack. Can send pics to serious buyer. Please respond off list. Thanks! / Woody / WD9F

17391. Re: MTR4b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-01 09:55:21 UTC
From: heinz.baertschi@...
Topic: 17318 Message: 17391

That's encouraging news, Colin.
I will stay tuned in the hope that the 60m code update will be available one day, together with all the required hardware modifications (such as L and C of the LPF).

73, Heinz HB9BCB

17392. Re: [AT_Sprint] Re: MTR4b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-01 19:02:12 UTC
From: Thomas Martin
Topic: 17318 Message: 17392

Speaking of encoders...

The encoder mentioned in the MTR5b manual seems to be out of stock everywhere. (Bourns Inc PEC11R-4220F-S0012) Does anyone have a spare, or a source with old stock? Or, can anyone recommend a similar part?

I'm not dead set on putting an encoder in my MTR5b, but it seems like it might be a fun project.

Thanks!

73,
-Thom
w8tam

On Sat, Dec 31, 2016 at 11:31 PM, steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> I deleted the encoder routine as an encoder can’t be easily added with the
> new case.
>
>
>
> The 16X2 display is physically the same size as the matrix display, but
> the characters are much bigger. See the picture on the LNR web site.
>
>
>
> Steve
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>
> Can the rotary encoder be added to the new 4b as well? Will the 16 x 2
> display have 5x7 matrix size like other two line LCD's or will it have text
> size the same as the 5b?
>
> Thanks
>
> John, N4HNO
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17393. Re: [AT_Sprint] Re: MTR4b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-02 18:18:49 UTC
From: Dave Miller
Topic: 17318 Message: 17393

Thom,
I see Mouser has the PEC11R-4225F-S0012 in stock. All you would have to do
is shorten the shaft.
Dave
VE7HR

On Sun, Jan 1, 2017 at 11:02 AM, Thomas Martin tmartin@...
[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Speaking of encoders...
>
> The encoder mentioned in the MTR5b manual seems to be out of stock
> everywhere. (Bourns Inc PEC11R-4220F-S0012) Does anyone have a spare, or
> a source with old stock? Or, can anyone recommend a similar part?
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> I'm not dead set on putting an encoder in my MTR5b, but it seems like it
> might be a fun project.
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> Thanks!
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>> display have 5x7 matrix size like other two line LCD's or will it have text
>> size the same as the 5b?
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>> Thanks
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>> John, N4HNO
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17394. MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-04 02:55:54 UTC
From: Fred Maas
Topic: 17394 Message: 17394

A KD1JV kit, MTR5 serial # 0073 has been put in my hands to help build.

I find two components in the kit both of which look to me to be the 60 mhz clock, U-11.

Confused:

one is a metal case, four corner contacts, looks like the crystals I have used in building MTR3s, printed on the case is

CTS23CB3

60M0000

1413 313

the other is a black phenolic case in a plastic container Printed on it is:

0600000

DCP1110

AABMX

They appear to me to BOTH be 60 mhz clocks ???

thank you!

Fred kt5x

17395. Re: [AT_Sprint] MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-04 03:47:50 UTC
From: Randy Moore
Topic: 17394 Message: 17395

Fred,

There was a problem with the initial clock distributed with the kit.
Steve replaced it. The one I have in my MTR5B is the CTS23CB3. I'm
sure that's the correct one.

73,
Randy, KS4L

------ Original Message ------
From: "'Fred Maas' just.one.hill@... [AT_Sprint]"
<AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: 1/3/2017 8:55:54 PM
Subject: [AT_Sprint] MTR5 parts ID help PSE

>
>
>A KD1JV kit, MTR5 serial # 0073 has been put in my hands to help build.
>
>
>
>I find two components in the kit both of which look to me to be the 60
>mhz clock, U-11.
>
>
>
>Confused:
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>one is a metal case, four corner contacts, looks like the crystals I
>have used in building MTR3s, printed on the case is
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>
>CTS23CB3
>
>60M0000
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>1413 313
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>the other is a black phenolic case in a plastic container Printed on
>it is:

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>0600000
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>DCP1110
>
>AABMX
>
>
>
>They appear to me to BOTH be 60 mhz clocks ???
>
>
>
>thank you!
>
>
>
>Fred kt5x
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>

17396. RE: [AT_Sprint] MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-04 03:49:51 UTC
From: Fred Maas
Topic: 17394 Message: 17396

Thanks, Guys. So they ARE both 60 mhz clocks ;-) And the one to use is the metal one.

Got it.

Fred

Fred,

There was a problem with the initial clock distributed with the kit. Steve replaced it. The one I have in my MTR5B is the CTS23CB3. I'm sure that's the correct one.

73,

Randy, KS4L

17397. Re: [AT_Sprint] MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-04 13:28:08 UTC
From: Dale Putnam
Topic: 17394 Message: 17397

Hi Fred,

The silver clock with the speed marked on it.. is the clock I'd use.

I've not built one with a black clock.

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of 'Fred Maas' just.one.hill@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Tuesday, January 3, 2017 7:55 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] MTR5 parts ID help PSE

A KD1JV kit, MTR5 serial # 0073 has been put in my hands to help build.

I find two components in the kit both of which look to me to be the 60 mhz clock, U-11.

Confused:

one is a metal case, four corner contacts, looks like the crystals I have used in building MTR3s, printed on the case is

CTS23CB3
60M0000
1413 313

the other is a black phenolic case in a plastic container Printed on it is:

0600000
DCP1110
AABMX

They appear to me to BOTH be 60 mhz clocks ???

thank you!

Fred kt5x

17398. Re: [AT_Sprint] MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-04 15:47:11 UTC
From: jgaffke@...
Topic: 17394 Message: 17398

If curious about why the black oscillator did not work well enough, check message 15660 and the thread around it.

Jerry, KE7ER

17399. Re: [AT_Sprint] MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-04 16:40:33 UTC
From: wrmoore47@...
Topic: 17394 Message: 17399

I'm familiar with this issue, but wanted to look at the history, but I can't figure out how to search based on a message number! Help!

73,
Randy, KS4L

17400. Re: [AT_Sprint] MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-04 16:50:47 UTC
From: wrmoore47@...
Topic: 17394 Message: 17400

Never mind, I found it!

17401. 80 acre FOXHUNT

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-05 01:13:05 UTC
From: Dale Putnam
Topic: 17401 Message: 17401

The 80 acre FOXHUNT will start promptly at 7pm MT Thursday evening, aka 0200z Fri, between the two trees marked 3550 and 3570.. Between those two trees will be TWO FOX, aka K4BAI and WC7S who will be calling "CQ FOX de (cal)" "UP" or "DWN"

This is a training for dx ops that want to become more proficient working through dx pileups, so listen close to the FOX instructions.. it isn't out of line to hear "up 1" then the next time "up 2" and then "dwn 1" ... all of which indicate where to go to grab a pelt freely handed out by the FOX. This also indicates what the FOX may be having to deal with too. A HUGE pile of baying hounds.. all in a pile is tuff to sort out, so moving about, may help, when following directions, or spreading just abit out of the pile.

The exchange will be - RST- state/province - name - power (max power is 5 watts, while many have gained a pelt with under 100 mw across the country)

K4BAI Ga John 5w

WC7S WyLee 5W

Good luck to all, and

May the PROPS be always in OUR FAVOR

Have a great day,

--... ..---
The Wylee FOX in Wy

17402. Re: [AT_Sprint] MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-05 16:53:45 UTC
From: Steve Saslow
Topic: 17394 Message: 17402

Oh my! Here's some latest news, on a different item: This morning, MFJ is announcing that is has discontinued the 9200 line (which includes the 9296). I telephoned MFJ to confirm. - No intention to mess up your day or bother you: I think FYI, and pretty inclined to believe Steve W would want to know... 72, Steve K7EW

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of wrmoore47@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Wednesday, January 4, 2017 4:50 PM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] MTR5 parts ID help PSE

Never mind, I found it!

17403. Re: [AT_Sprint] MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-05 17:38:05 UTC
From: David Wilcox
Topic: 17394 Message: 17403

Where did you "find" the news about MFJ? I went to their site and didn't see anything. Do they have a news site or is there some place else I should look. I have a 9200 and most of the modules. Will have to check and see what I may need to complete the set. A fun little radio although limited.

Dave K8WPE

> On Jan 5, 2017, at 11:53 AM, Steve Saslow k7ew@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> Oh my! Here's some latest news, on a different item: This morning, MFJ is announcing that is has discontinued the 9200 line (which includes the 9296). I telephoned MFJ to confirm. - No intention to mess up your day or bother you: I think FYI, and pretty inclined to believe Steve W would want to know... 72, Steve K7EW
>
>
>
> From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of wrmoore47@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
> Sent: Wednesday, January 4, 2017 4:50 PM
> To: AT_Sprint@yahoogroups.com
> Subject: Re: [AT_Sprint] MTR5 parts ID help PSE
>
>
> Never mind, I found it!
>
>

17404. Re: [AT_Sprint] MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-05 17:53:34 UTC
From: Steve Saslow
Topic: 17394 Message: 17404

Dave, I was on their waiting list for a 9296; they were emailing everyone on that list, that's how I found out, - notice of cancellation!

BTW the filter/coil plug-in modules are have apparently been made by a separate manufacturer here is usa, separate from the rest of the transceiver...perhaps that may help you chase them down! 72, Steve K7EW

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of David Wilcox djwilcox01@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Thursday, January 5, 2017 5:38 PM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] MTR5 parts ID help PSE

Where did you "find" the news about MFJ? I went to their site and didn't see anything. Do they have a news site or is there some place else I should look. I have a 9200 and most of the modules. Will have to check and see what I may need to complete the set. A fun little radio although limited.

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From: AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com> <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> on behalf of wrmoore47@...<mailto:wrmoore47@...> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>>
Sent: Wednesday, January 4, 2017 4:50 PM
To: AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>
Subject: Re: [AT_Sprint] MTR5 parts ID help PSE

Never mind, I found it!

17405. Re: [AT_Sprint] MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-05 18:16:09 UTC
From: David Wilcox
Topic: 17394 Message: 17405

Steve,

Thank you. I ordered one on a whim a few years ago and have had fun with it, but that was when they sold only the radio and one module. Later they came out with the xcvr and a set of modules for I think the same price as the original radio. Such is life. Am in Florida for another week. When I get home will check and see what modules I need to complete the set. Maybe they will at least have them. If you find out who made them let me know so I can order them direct. I am surprised how few if any of the 9200s I have seen used on eBay. May they didn't sell well. OR they were such good radios no one will part with them..... Ha! Very doubtful. I have had fun with mine. Down here visiting the kids I am using an MTR5 and NorCal Altoids tuner to a 58 ft wire with counterpoise. Seems to work well. Little time to play since new grand daughter arrived on the scene.

Dave K8WPE

> On Jan 5, 2017, at 12:53 PM, Steve Saslow k7ew@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> Dave, I was on their waiting list for a 9296; they were emailing everyone on that list, that's how I found out, - notice of cancellation!
>
> BTW the filter/coil plug-in modules are have apparently been made by a separate manufacturer here is usa, separate from the rest of the transceiver...perhaps that may help you chase them down! 72, Steve K7EW
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> From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of David Wilcox djwilcox01@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
> Sent: Thursday, January 5, 2017 5:38 PM
> To: AT_Sprint@yahoogroups.com
> Subject: Re: [AT_Sprint] MTR5 parts ID help PSE
>
>
> Where did you "find" the news about MFJ? I went to their site and didn't see anything. Do they have a news site or is there some place else I should look. I have a 9200 and most of the modules. Will have to check and see what I may need to complete the set. A fun little radio although limited.
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>> From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of wrmoore47@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
>> Sent: Wednesday, January 4, 2017 4:50 PM
>> To: AT_Sprint@yahoogroups.com
>> Subject: Re: [AT_Sprint] MTR5 parts ID help PSE
>>
>>
>> Never mind, I found it!
>>
>
>

17406. Re: [AT_Sprint] MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-05 18:24:10 UTC
From: John Evans
Topic: 17394 Message: 17406

Hi Dave,

Question - what is this Norcal Altoids tuner you speak of ? Something new or maybe it is the KD1JV Altoids tuner.

tnx es 72 - john - n0hj

On Thu, Jan 5, 2017 at 11:16 AM, David Wilcox djwilcox01@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Steve,
>
> Thank you. <...> Down here visiting the kids I am using an MTR5 and
> NorCal Altoids tuner to a 58 ft wire with counterpoise. <...>
>

> Dave K8WPE
>
>
>
>

17407. Re: [AT_Sprint] MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-05 18:41:29 UTC
From: Steve Saslow
Topic: 17394 Message: 17407

Dave it would be best if you immediately contact me off of here! use my callsign "at" hotmail dot com...-Steve K7EW

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of David Wilcox djwilcox01@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Thursday, January 5, 2017 6:16 PM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] MTR5 parts ID help PSE

Steve,

Thank you. I ordered one on a whim a few years ago and have had fun with it, but that was when they sold only the radio and one module. Later they came out with the xcvr and a set of modules for I think the same price as the original radio. Such is life. Am in Florida for another week. When I get home will check and see what modules I need to complete the set. Maybe they will at least have them. If you find out who made them let me know so I can order them direct. I am surprised how few if any of the 9200s I have seen used on eBay. May they didn't sell well. OR they were such good radios no one will part with them..... Ha! Very doubtful. I have had fun with mine. Down here visiting the kids I am using an MTR5 and NorCal Altoids tuner to a 58 ft wire with counterpoise. Seems to work well. Little time to play since new grand daughter arrived on the scene.

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BTW the filter/coil plug-in modules are have apparently been made by a separate manufacturer here is usa, separate from the rest of the transceiver...perhaps that may help you chase them down! 72, Steve K7EW

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Sent: Thursday, January 5, 2017 5:38 PM
To: AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>
Subject: Re: [AT_Sprint] MTR5 parts ID help PSE

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Dave K8WPE

On Jan 5, 2017, at 11:53 AM, Steve Saslow k7ew@...<mailto:k7ew@hotmail.com> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

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From: AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com> <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> on behalf of wrmoore47@gmail.com<mailto:wrmoore47@...> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>>
Sent: Wednesday, January 4, 2017 4:50 PM
To: AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>
Subject: Re: [AT_Sprint] MTR5 parts ID help PSE

Never mind, I found it!

17408. Re: [AT_Sprint] MTR5 parts ID help PSE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-05 21:29:23 UTC
From: David Wilcox
Topic: 17394 Message: 17408

Yes, it is of Steve's design. It is still for sale on the QRPKits site as the Altoids Longwire Antenna Tuner. I bought it from another ham a few years ago at FDIM. Steve originally had the capacitor switchable for high Z or low Z and mine is that one, but like Steve said in his write up the low Z portion didn't work very well. His write up is at http://kd1jv.qrpradio/com/alt/ALT.HTM. It works quite well with my 58 ft wire and 16 ft counterpoise.

Dave K8WPE

> On Jan 5, 2017, at 1:24 PM, John Evans john.evans.n0hj@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> Hi Dave,
>
> Question - what is this Norcal Altoids tuner you speak of ? Something new or maybe it is the KD1JV Altoids tuner.
>
> tnx es 72 - john - n0hj
>
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>> On Thu, Jan 5, 2017 at 11:16 AM, David Wilcox djwilcox01@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>>
>> Steve,
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>> Thank you. <...> Down here visiting the kids I am using an MTR5 and NorCal Altoids tuner to a 58 ft wire with counterpoise. <...>
>
>> Dave K8WPE
>>
>>
>
>

17409. FS: MTR3 and MDBC Unbuilt Kits

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-06 23:18:18 UTC
From: esclavosoy.ml@...
Topic: 17409 Message: 17409

Hello,

I have for sale two unbuilt kits I would like to sell as a package. Asking $310 shipped CONUS.

Gabriel N6OSB

17411. Re: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-09 08:55:37 UTC
From: simon.jack68@...
Topic: 17212 Message: 17411

I'm definitely interested in one of these.

Simon
VK3ELH

17412. Re: MTR4b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-09 15:23:35 UTC
From: heinz.baertschi@...
Topic: 17318 Message: 17412

Steve,
The new WRC-15 allocations have been intensively used in many European countries since 1 January 2017 and the 60m band is also regularly used now by the SOTA activators.
My MTR4B has arrived today, so may I ask you to make its code available (version used by LNR) for adding the 60m band? Of corse, a suggestion for the LPF filter mods would be appreciated also!

73 tks,
Heinz HB9BCB

17413. RE: [AT_Sprint] Re: MTR4b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-09 19:44:23 UTC
From: <steve.kd1jv@...>
Topic: 17318 Message: 17413
Attachments: 1 described; binary payloads are missing from this source WARC

When I get a chance, will be very low on the priority list. What are the band limits?
Steve KD1JV

Steve,
The new WRC-15 allocations have been intensively used in many European countries since 1 January 2017 and the 60m band is also regularly used now by the SOTA activators.
My MTR4B has arrived today, so may I ask you to make its code available (version used by LNR) for adding the 60m band? Of corse, a suggestion for the LPF filter mods would be appreciated also!

73 tks,
Heinz HB9BCB

17414. RE: [AT_Sprint] Re: MTR4b [1 Attachment]

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-09 19:54:56 UTC
From: Mike Olbrisch
Topic: 17318 Message: 17414

He's not kidding. You should see the stuff coming out of Europe and JT-65.

Vy73 -- Mike -- KD5KC.

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Monday, January 09, 2017 12:44
To: heinz.baertschi@... [AT_Sprint]
Subject: RE: [AT_Sprint] Re: MTR4b [1 Attachment]

[Attachment(s) from steve.kd1jv@... included below]

When I get a chance, will be very low on the priority list. What are the band limits?
Steve KD1JV

Steve,
The new WRC-15 allocations have been intensively used in many European countries since 1 January 2017 and the 60m band is also regularly used now by the SOTA activators.
My MTR4B has arrived today, so may I ask you to make its code available (version used by LNR) for adding the 60m band? Of corse, a suggestion for the LPF filter mods would be appreciated also!

73 tks,
Heinz HB9BCB

17415. Re: MTR4b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-09 21:07:12 UTC
From: heinz.baertschi@...
Topic: 17318 Message: 17415

Steve,
I/we would be happy if the code could be made available "as it is".
The code extension for 60m could then be done by the MTR enthusiasts itself, so no extra burden for you.

WRC-15 allocation for 60m:
5351.5 – 5354.0 kHz: CW, small-band modes
5354.0 – 5366.0 kHz: all modes *
5366.0 – 5366.5 kHz: small-band modes for weak signals
*) For SSB use USB

Heinz HB9BCB

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :

When I get a chance, will be very low on the priority list. What are the band limits?
Steve KD1JV

Steve,
The new WRC-15 allocations have been intensively used in many European countries since 1 January 2017 and the 60m band is also regularly used now by the SOTA activators.
My MTR4B has arrived today, so may I ask you to make its code available (version used by LNR) for adding the 60m band? Of corse, a suggestion for the LPF filter mods would be appreciated also!

73 tks,
Heinz HB9BCB

17416. pick me up material for any case builder's blues

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-10 18:54:48 UTC
From: sreedq1014@...
Topic: 17416 Message: 17416

Hello case builders. I was paying interest to guitars recently, and reflected back on the pick guards of my past . I am a lefty, so every guitar I had, I turned up-side down to play, and so went the pick guard, to the top - out of play. Never got scratched. Beautiful. So, here is some white pearl, 3-ply laminate I found on line, destined for some hard bodied ax. I thought, wouldn't that look great for a face plate on my meter case that I just completed. So I got this pearl vinyl three ply laminate, come from china on slo boat. put it on this copper circuit board case , and the vinyl turned out being very easy to work with. I glued with gel super glue. I cut the laminate with a coping saw. Any fine toothed saw. Slightly over sized, I glued the piece to the front of the case. Next morning, I filed the edges with a pointed, triangular file. I haven't stopped looking at it since. I have got to learn how to make and apply decals now. I thought about the shiny copper today, and the dull copper tomorrow . This might make your case too classy.

I found it on ebay. Looks spendy at 15$, but plenty of pieces can come from it. 73, shawnr. kf7yff.

17417. Re: [AT_Sprint] pick me up material for any case builder's blues

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-10 19:24:07 UTC
From: Joe Street
Topic: 17416 Message: 17417

Forget the decals take that pick guard down to the local sign and graphics shop and ask them to engrave the labels for the controls. The engraving bit only goes down to the coloured layer of the ply. Presto you have sweet looking labels that won't peel off. Shouldn't cost you much these days.

On Tue, Jan 10, 2017 at 1:54 PM, sreedq1014@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Hello case builders. I was paying interest to guitars recently, and
> reflected back on the pick guards of my past . I am a lefty, so every
> guitar I had, I turned up-side down to play, and so went the pick guard, to
> the top - out of play. Never got scratched. Beautiful. So, here is some
> white pearl, 3-ply laminate I found on line, destined for some hard bodied
> ax. I thought, wouldn't that look great for a face plate on my meter case
> that I just completed. So I got this pearl vinyl three ply laminate, come
> from china on slo boat. put it on this copper circuit board case , and the
> vinyl turned out being very easy to work with. I glued with gel super glue.
> I cut the laminate with a coping saw. Any fine toothed saw. Slightly over
> sized, I glued the piece to the front of the case. Next morning, I filed
> the edges with a pointed, triangular file. I haven't stopped looking at it
> since. I have got to learn how to make and apply decals now. I thought
> about the shiny copper today, and the dull copper tomorrow . This might
> make your case too classy.
>
>
>
> I found it on ebay. Looks spendy at 15$, but plenty of pieces can come
> from it. 73, shawnr. kf7yff.
>
>
>

17418. Re: [AT_Sprint] pick me up material for any case builder's blues

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-11 01:16:30 UTC
From: sreedq1014@...
Topic: 17416 Message: 17418

That sounds like a very good idea. Thank you for that. sreed. kf7yff

17419. Re: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-11 16:46:50 UTC
From: gary.video@...
Topic: 17212 Message: 17419

Possible name: Band Aid. Maybe it will fit inside a metal band aid box.

17420. Re: [AT_Sprint] Re: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-11 17:41:36 UTC
From: Lee Hiers
Topic: 17212 Message: 17420

On Wed, Jan 11, 2017 at 11:46 AM, gary.video@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> Possible name: Band Aid. Maybe it will fit inside a metal band aid box.
>
I keep my ATS-3b band plug-in boards in an old metal Band-Aid box!

73 de Lee
--
Lee Hiers, AA4GA
www.aa4ga.com

Submit your QRP DXCC totals to www.qrpdx.com!

17421. RE: [AT_Sprint] Re: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-11 17:39:01 UTC
From: <steve.kd1jv@...>
Topic: 17212 Message: 17421

I might go with SODA POP as a play on SOTA OP.
KD1JV

Possible name: Band Aid. Maybe it will fit inside a metal band aid box.

17422. Re[2]: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-11 17:49:04 UTC
From: Gil G.
Topic: 17212 Message: 17422

Given our position in the solar cycle, including components for 80m would be awesome..
Gil
--
Sent from Mail.Ru app for Android Wednesday, 11 January 2017, 06:39PM +01:00 from steve.kd1jv@gmail.com [AT_Sprint] AT_Sprint@yahoogroups.com :

>
>I might go with SODA POP as a play on SOTA OP.
>KD1JV
>
>Possible name: Band Aid. Maybe it will fit inside a metal band aid box.
>
>
>
>

17423. New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-11 18:40:56 UTC
From: AT_Sprint@yahoogroups.com
Topic: 1459 Message: 17423

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the AT_Sprint
group.

File : /MTR-4B/MTR_4B_2x16_LCD_60M.bin
Uploaded by : kd1jv <steve.kd1jv@...>
Description : MTR-4B with 60M and encoder enabled.

You can access this file at the URL:
https://groups.yahoo.com/neo/groups/AT_Sprint/files/MTR-4B/MTR_4B_2x16_LCD_60M.bin

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

kd1jv <steve.kd1jv@...>

17424. MTR-4B with 60M band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-11 18:53:05 UTC
From: steve.kd1jv@...
Topic: 17424 Message: 17424

Due to popular demand (well, at least one demand) to include the EU 60M band, it is now in the files. Use the batch file with the MspFet utility located in another folder (I think with the MTR-5B)

In this file, 60M has been substituted for 80M. I also re-enabled the encoder input if you want to try to and squeeze an encoder in there.

This file will also work with the new MTR-5B with 2X16 LCD, but you'd have to eliminate one of the bands by changing the band select resistor.

I think you can re-tune the Rx input by simply removing the fixed caps padding the trimmers for 80M and re-peaking. The Tx LPF will be a little harder to change, you'll have to change the caps in the 80M filter with new values, which I haven't figured out yet, but I think somewhere in the files there are values can use to start with.

73, Steve KD1JV

17425. Re: MTR-4B with 60M band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-11 20:52:26 UTC
From: heinz.baertschi@...
Topic: 17424 Message: 17425

Steve,
This looks really like a belated christmas gift, many thanks for this excellent and very appreciated customer support !!!
BTW, did you change also the band annunciator from "9" (hi) to "6" ?
73 tks, Heinz HB9BCB

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :

Due to popular demand (well, at least one demand) to include the EU 60M band, it is now in the files. Use the batch file with the MspFet utility located in another folder (I think with the MTR-5B)

17426. RE: [AT_Sprint] Re: MTR-4B with 60M band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-12 01:29:01 UTC
From: <steve.kd1jv@...>
Topic: 17424 Message: 17426
Attachments: 1 described; binary payloads are missing from this source WARC

Actually, I changed it to “5” now that I think about it, it should have been 6.

Steve,
This looks really like a belated christmas gift, many thanks for this excellent and very appreciated customer support !!!
BTW, did you change also the band annunciator from "9" (hi) to "6" ?
73 tks, Heinz HB9BCB

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :
Due to popular demand (well, at least one demand) to include the EU 60M band, it is now in the files. Use the batch file with the MspFet utility located in another folder (I think with the MTR-5B)

17427. New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-12 08:49:57 UTC
From: AT_Sprint@yahoogroups.com
Topic: 1459 Message: 17427

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the AT_Sprint
group.

File : /MTR-4B/MTR4B - Bench tests by HB9BCB.pdf
Uploaded by : heinzbaertschi <heinz.baertschi@...>
Description :

You can access this file at the URL:
https://groups.yahoo.com/neo/groups/AT_Sprint/files/MTR-4B/MTR4B%20-%20Bench%20tests%20by%20HB9BCB.pdf

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

heinzbaertschi <heinz.baertschi@...>

17428. Encoder lead lengths?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-12 19:29:56 UTC
From: heinz.baertschi@...
Topic: 17428 Message: 17428

Has anyone experimented with encoder lead lengths (e.g. critical length, shielding)?

In order not to be misunderstood, it is not intended to build a solution similar to K-POD Control Panel, hi.

17429. RE: [AT_Sprint] Encoder lead lengths?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-12 19:44:22 UTC
From: <steve.kd1jv@...>
Topic: 17428 Message: 17429

Shouldn’t be an issue unless you go out 3-4 feet.

Has anyone experimented with encoder lead lengths (e.g. critical length, shielding)?
In order not to be misunderstood, it is not intended to build a solution similar to K-POD Control Panel, hi.

17430. Re: MTR-4B with 60M band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-15 10:52:32 UTC
From: heinz.baertschi@...
Topic: 17424 Message: 17430

Unfortunately nothing found in the Files folder except custom software. The only component changes I got so far are from Colin G8TMV. These are for the 2-band MTR and were used by himself and Peter G4ISJ (and possibly others).

So I see no way to continue without knowing either the concrete values or things like
- MTR4B schematic
- Type of LPF filter used (with recommendation for a filter calculator tool)

Anyway, since I don't want to make experiments, the risks for the conversion should be minimal.

Heinz HB9BCB

The Tx LPF will be a little harder to change, you'll have to change the caps in the 80M filter with new values, which I haven't figured out yet, but I think somewhere in the files there are values can use to start with.

73, Steve KD1JV

17431. Re: [AT_Sprint] MTR-4B with 60M band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-15 11:26:16 UTC
From: Colin Tuckley
Topic: 17424 Message: 17431

On 11/01/17 18:53, Steve wrote:

> Due to popular demand (well, at least one demand) to include the EU 60M
> band, it is now in the files.

Steve, I'm not sure why you are so against the 60m band. First, it's not an 'EU' band, it's a worldwide band since WRC-15. Second, the ARRL are currently petitioning the FCC to "allocate a new, secondary contiguous band at 5 MHz to the Amateur Service, while also retaining four of the current five 60-meter channels and current operating rules, including the 100 W PEP effective radiated power (ERP) limit." So it hopefully will soon be usable in the USA.

60m is an almost ideal band for the primary design use of the ATS and MTR rigs. With low, lightweight EFHW or Dipole antennas and low power the band gives coverage out to about 400 miles via NVIS propagation even in mountainous terrain where normal ground wave and low angle sky wave radiation does not work.

So, please, would you take the time to support 60m on all your rig designs.

73, Colin G8TMV

--
Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
Debian Developer | +44(0)7799 143369 | 0xFA0C410738C9D903

17432. RE: [AT_Sprint] MTR-4B with 60M band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-16 01:37:19 UTC
From: <steve.kd1jv@...>
Topic: 17424 Message: 17432

Steve, I'm not sure why you are so against the 60m band. First, it's not

I’m not against the 60M band, but at the moment due to the current regulations here in the States, it’s not a very popular band and what activity there is seems to be voice. Since the vast majority of the MTR rigs are sold in the US, adding a band which few if any will use does not make sense or cents. It’s also not practical to have “made to order” band selections.

So, unless the FCC changes the rules for us, 60M is an orphan band. If and when the rules do change and a demand for 60M becomes evident, then we’ll have to give it some thought.

73, Steve KD1JV

17433. Re: MTR-4B with 60M band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-16 09:53:14 UTC
From: heinz.baertschi@...
Topic: 17424 Message: 17433

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :

So, unless the FCC changes the rules for us, 60M is an orphan band. If and when the rules do change and a demand for 60M becomes evident, then we'll have to give it some thought.
73, Steve KD1JV

Steve, although we will have to accept the commercial aspects, life can be too short to wait (especially true for over-70s).

So, you could make me a very satisfied MTR4B user also by providing a modified original software version with
- the encoder supported again and
- the 80m band annunciator set to "8" (instead of actually "9").
Ok?

73 tks, Heinz HB9BCB

17434. Re: [AT_Sprint] Re: MTR-4B with 60M band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-16 10:48:23 UTC
From: Hank Greeb
Topic: 17424 Message: 17434

I've never used 60 meters, but there are times when it might be handy - 40 too long, 80 too short.

Started out as spot frequencies for Ham Use in Alaska, then US wide allocation of spot frequencies, and proposed "band" near existing spot freq. If the "band" is implemented, I probably will be interested.

72/73 de n8xx Hg
QRP >99.44% of the time

On 1/16/2017 4:53 AM, heinz.baertschi@... [AT_Sprint] wrote:

> ---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :
>
> So, unless the FCC changes the rules for us, 60M is an orphan band. If
> and when the rules do change and a demand for 60M becomes evident,
> then we'll have to give it some thought.
>
> 73, Steve KD1JV
>
> Steve, although we will have to accept the commercial aspects, life
> can be too short to wait (especially true for over-70s).
>
> So, you could make me a very satisfied MTR4B user also by providing a
> modified original software version with- the encoder supported again
> and- the 80m band annunciator set to "8" (instead of actually "9").
>
> Ok?
>
> 73 tks, Heinz HB9BCB
>

17435. Re: [AT_Sprint] Re: MTR-4B with 60M band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-16 13:46:11 UTC
From: Myron Schaffer
Topic: 17424 Message: 17435

And lately the foF2 map has been showing us (and revealed in poor nighttime propagation) that we really need expansion on the 500-kHz band to support any NVIS propagation later on in the day. (Hi Hank)

Myron WVØH
Printed on Recycled Data

> On Jan 16, 2017, at 3:48 AM, Hank Greeb n8xx@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> I've never used 60 meters, but there are times when it might be handy - 40 too long, 80 too short.
>
> Started out as spot frequencies for Ham Use in Alaska, then US wide allocation of spot frequencies, and proposed "band" near existing spot freq. If the "band" is implemented, I probably will be interested.
>
> 72/73 de n8xx Hg
> QRP >99.44% of the time
>
>
>> On 1/16/2017 4:53 AM, heinz.baertschi@... [AT_Sprint] wrote:
>> ---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :
>>
>> So, unless the FCC changes the rules for us, 60M is an orphan band. If and when the rules do change and a demand for 60M becomes evident, then we'll have to give it some thought.
>> 73, Steve KD1JV
>>
>> Steve, although we will have to accept the commercial aspects, life can be too short to wait (especially true for over-70s).
>>
>> So, you could make me a very satisfied MTR4B user also by providing a modified original software version with - the encoder supported again and - the 80m band annunciator set to "8" (instead of actually "9").
>>
>> Ok?
>>
>> 73 tks, Heinz HB9BCB
>>
>
>

17436. RE: [AT_Sprint] Re: MTR-4B with 60M band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-16 11:11:43 UTC
From: <frank.lagaet@...>
Topic: 17424 Message: 17436

Not everyone has 60mtr material... I hear a lot on 60 but doubt to take it with me on sota. A search for 60mtr sota contacts is at hand.

A 4 band 80, 60, 40, 30 would be a nice lowbander !

73
On6uu

Frank Lagaet <https://myprofile.bt.com/Person.aspx?accountname=IUSER%5C702165922>
IT Support Engineer - Site Support Datacenter BE, Core IT Infrastructure
BT Technology Service & Operations <https://intra.bt.com/bt/tso/Pages/index.aspx> | Tel: +3227002316 | Mobile +32495582316 <tel:+3227002316%20|%20Mobile%20+32495582316> | MyProfile <https://myprofile.bt.com/Person.aspx?accountname=IUSER%5C702165922> | frank.lagaet@bt.com <mailto:frank.lagaet@bt.com> | http://fixit.bt.com/

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From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: 16 January 2017 11:48
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: MTR-4B with 60M band

I've never used 60 meters, but there are times when it might be handy - 40 too long, 80 too short.

Started out as spot frequencies for Ham Use in Alaska, then US wide allocation of spot frequencies, and proposed "band" near existing spot freq. If the "band" is implemented, I probably will be interested.

72/73 de n8xx Hg
QRP >99.44% of the time

On 1/16/2017 4:53 AM, heinz.baertschi@bluewin.ch<mailto:heinz.baertschi@bluewin.ch> [AT_Sprint] wrote:
---In AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>, <steve.kd1jv@...><mailto:steve.kd1jv@...> wrote :

So, unless the FCC changes the rules for us, 60M is an orphan band. If and when the rules do change and a demand for 60M becomes evident, then we'll have to give it some thought.

73, Steve KD1JV

Steve, although we will have to accept the commercial aspects, life can be too short to wait (especially true for over-70s).

So, you could make me a very satisfied MTR4B user also by providing a modified original software version with - the encoder supported again and - the 80m band annunciator set to "8" (instead of actually "9").

Ok?

73 tks, Heinz HB9BCB

17437. Re: MTR-4B with 60M band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-16 20:23:05 UTC
From: heinz.baertschi@...
Topic: 17424 Message: 17437

Steve,
Sorry to come back. I have SVC and ELSIE (Student version) from Tonne Software in use. So, if I would know the type of LPF filter used on the MTR4B I could make a try.
Any chance/try?

73, Heinz HB9BCB

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :

I think you can re-tune the Rx input by simply removing the fixed caps padding the trimmers for 80M and re-peaking. The Tx LPF will be a little harder to change, you'll have to change the caps in the 80M filter with new values, which I haven't figured out yet, but I think somewhere in the files there are values can use to start with.
73, Steve KD1JV

17438. Update: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-16 21:13:59 UTC
From: Steven Weber
Topic: 17438 Message: 17438

I got my first pass boards in on Friday and I have one up and running.

I quickly discovered a couple of issues, like needing more gain in the IF amp and my two board design doesn't look like it will be too practical.

So, I'm redoing the layout to be a single board with the display and controls on the top and all the jacks on the rear, simlar to the MTR design. The Green LED display looks neat too.

If I don't make any mistakes on this new layout and don't have to do a 3d round of boards, it's looking like early March for having everything ready to go.

73, Steve KD1JV

17439. Re: [AT_Sprint] Update: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-16 22:09:32 UTC
From: Steve Saslow
Topic: 17438 Message: 17439

Steve - Thank you so much for your care, and for keeping us so appropriately posted!
Sincerely, Steve Saslow k7ew

On Jan 16, 2017, at 1:13 PM, 'Steven Weber'
steve.kd1jv@gmail.com<mailto:steve.kd1jv@gmail.com> [AT_Sprint]
<AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

☐

I got my first pass boards in on Friday and I have one up and running.

I quickly discovered a couple of issues, like needing more gain in the IF amp and my two board design doesn't look like it will be too practical.

So, I'm redoing the layout to be a single board with the display and controls on the top and all the jacks on the rear, simlar to the MTR design. The Green LED display looks neat too.

If I don't make any mistakes on this new layout and don't have to do a 3d round of boards, it's looking like early March for having everything ready to go.

73, Steve KD1JV

17440. RE: [AT_Sprint] Re: MTR-4B with 60M band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-16 23:22:25 UTC
From: Mike Olbrisch
Topic: 17424 Message: 17440

I have in the past tried 60m for SOTA. And I was pleased with the results. Now that I again have a 60m antenna, I may once again try it. It isn't likely you'll hear me as KD5KC in Texas.

However, in June I will be DL/KD5KC again. And I will have 60m with the new antenna, so perhaps then.

I usually visit one other country's SOTA summit while over there (2015), last trip I did OE, trip before that (2013) I did OK. Any EASY summits in ON close to Germany?

Vy73 - Mike - KD5KC.
El Paso, Texas - DM61rt.
W5-SOTA Association Manager.
NA-SOTA info: http://na-sota.org/

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Monday, January 16, 2017 04:12
To: AT_Sprint@yahoogroups.com
Subject: RE: [AT_Sprint] Re: MTR-4B with 60M band

Not everyone has 60mtr material... I hear a lot on 60 but doubt to take it with me on sota. A search for 60mtr sota contacts is at hand.

A 4 band 80, 60, 40, 30 would be a nice lowbander !

73
On6uu

<https://myprofile.bt.com/Person.aspx?accountname=IUSER%5C702165922> Frank Lagaet
IT Support Engineer - Site Support Datacenter BE, Core IT Infrastructure
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<https://myprofile.bt.com/Person.aspx?accountname=IUSER%5C702165922> MyProfile |
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From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: 16 January 2017 11:48
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: MTR-4B with 60M band

I've never used 60 meters, but there are times when it might be handy - 40 too long, 80 too short.

Started out as spot frequencies for Ham Use in Alaska, then US wide allocation of spot frequencies, and proposed "band" near existing spot freq. If the "band" is implemented, I probably will be interested.

72/73 de n8xx Hg
QRP >99.44% of the time

On 1/16/2017 4:53 AM, heinz.baertschi@... [AT_Sprint] wrote:
---In AT_Sprint@yahoogroups.com, <mailto:steve.kd1jv@...> <steve.kd1jv@...> wrote :

So, unless the FCC changes the rules for us, 60M is an orphan band. If and when the rules do change and a demand for 60M becomes evident, then we'll have to give it some thought.
73, Steve KD1JV

Steve, although we will have to accept the commercial aspects, life can be too short to wait (especially true for over-70s).

So, you could make me a very satisfied MTR4B user also by providing a modified original software version with - the encoder supported again and - the 80m band annunciator set to "8" (instead of actually "9").
Ok?

73 tks, Heinz HB9BCB

17441. RE: [AT_Sprint] Update: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-16 23:24:00 UTC
From: Ken Talbott
Topic: 17438 Message: 17441

Congrats Steve! I am really looking forward to the new rig. With the bands like they are, an 80m single bander is really attractive. One resonant antenna and no pressure for anything more complicated ‘just in case’.

Ken ke4rg

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: January 16, 2017 16:14
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Update: New rig in the works

☐

I got my first pass boards in on Friday and I have one up and running.

I quickly discovered a couple of issues, like needing more gain in the IF amp and my two board design doesn't look like it will be too practical.

So, I'm redoing the layout to be a single board with the display and controls on the top and all the jacks on the rear, simlar to the MTR design. The Green LED display looks neat too.

If I don't make any mistakes on this new layout and don't have to do a 3d round of boards, it's looking like early March for having everything ready to go.

73, Steve KD1JV

17442. RE: [AT_Sprint] Re: MTR-4B with 60M band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-17 06:26:27 UTC
From: <frank.lagaet@...>
Topic: 17424 Message: 17442

Hi Mike,

Yes, you can do 4-5 on one day near the German border. On is actually on the border, the others are some more inland Belgium. Sotamaps will show you. ON-001 =drive on, ON-009 = drive on, ON-010 = drive on, ON-025 = drive to summit, walk 5 minutes not steep, ON-026 =drive on.

Not far from the Belgian border is also DM/RP-003 = drive on.

73
Frank ON6UU

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: 17 January 2017 00:22
To: AT_Sprint@yahoogroups.com
Subject: RE: [AT_Sprint] Re: MTR-4B with 60M band

I have in the past tried 60m for SOTA. And I was pleased with the results. Now that I again have a 60m antenna, I may once again try it. It isn't likely you'll hear me as KD5KC in Texas.

However, in June I will be DL/KD5KC again. And I will have 60m with the new antenna, so perhaps then.

I usually visit one other country's SOTA summit while over there (2015), last trip I did OE, trip before that (2013) I did OK. Any EASY summits in ON close to Germany?

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W5-SOTA Association Manager.
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To: AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>
Subject: RE: [AT_Sprint] Re: MTR-4B with 60M band

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A 4 band 80, 60, 40, 30 would be a nice lowbander !

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On6uu

Frank Lagaet <https://myprofile.bt.com/Person.aspx?accountname=IUSER%5C702165922>
IT Support Engineer - Site Support Datacenter BE, Core IT Infrastructure

BT Technology Service & Operations <https://intra.bt.com/bt/tso/Pages/index.aspx> | Tel: +3227002316 | Mobile +32495582316 <tel:+3227002316%20|%20Mobile%20+32495582316> | MyProfile <https://myprofile.bt.com/Person.aspx?accountname=IUSER%5C702165922> | frank.lagaet@bt.com <mailto:frank.lagaet@bt.com> | http://fixit.bt.com/

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From: AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>
[mailto:AT_Sprint@yahoogroups.com]
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Subject: Re: [AT_Sprint] Re: MTR-4B with 60M band

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72/73 de n8xx Hg
QRP >99.44% of the time

On 1/16/2017 4:53 AM, heinz.baertschi@bluewin.ch<mailto:heinz.baertschi@bluewin.ch>
[AT_Sprint] wrote:
---In AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>,
<steve.kd1jv@...><mailto:steve.kd1jv@...> wrote :

So, unless the FCC changes the rules for us, 60M is an orphan band. If and when the rules do change and a demand for 60M becomes evident, then we’ll have to give it some thought.

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Steve, although we will have to accept the commercial aspects, life can be too short to wait (especially true for over-70s).

So, you could make me a very satisfied MTR4B user also by providing a modified original software version with - the encoder supported again and - the 80m band annunciator set to "8" (instead of actually "9").

Ok?

73 tks, Heinz HB9BCB

17443. Re: Update: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-17 14:30:16 UTC
From: Richard Lawn
Topic: 17443 Message: 17443

Very cool, Steve! Thanks for keeping us posted when you can.
73

Rick, W2JAZ
--
Sent from Gmail Mobile

17444. [FS] MTR 20/30 & ATS-4b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-18 22:05:54 UTC
From: sq1lzt@...
Topic: 17444 Message: 17444

Hello,

for those hunting for MTR or ATS-4b TRX - I am selling mine:

MTR 20/30 (finished)
http://ebay.com/itm/322395115021 http://ebay.com/itm/322395115021

ATS-4b (to be finished):
http://ebay.com/itm/322395125810 http://ebay.com/itm/322395125810
73 de Remi HF1RF /ex-SQ1LZT/

17445. NAQCC 160 Meter Sprint Tuessday Night

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-24 10:59:05 UTC
From: Larry W2LJ
Topic: 16199 Message: 17445

The January special 160 Meters Sprint is this coming Tuesday evening local time (January 24th,
EST - 8:30-10:30PM, CST - 7:30-9:30PM, MST - 6:30-8:30PM, PST - 5:30-7:30PM),
which translates as Wednesday, January 25th, 0130 to 0330Z in all cases.

For all the "official" information, please go to:

http://naqcc.info/sprint/sprint201701_160.html

There you will find all the details as to time, frequencies and other important information.

If you've been hesitant to join in our sprints because you hear other sprints running at breakneck speeds, have no fear. Our sprints are geared to the newcomer to CW and/or contesting. Virtually everyone including the many veteran contesters who regularly enter our sprints will slow down to YOUR speed to help you make your contacts.

If you are not already a member of NAQCC... membership is FREE! Now is your chance to join the largest QRP CW Club in the world!! We currently have 7100+ members in: All 50 States - 9 VE Provinces - 100 Countries. Sign up on the NAQCC website today (http://naqcc.info/) and receive a handsome certificate, with your membership number on it, which is good for life.

72/73 de Larry W2LJ
NAQCC #35

Come join us and have a real good time!

17446. LNR MTR-5b 80M conversion?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-24 21:36:58 UTC
From: john_andberg@...
Topic: 17446 Message: 17446

Hi All:

I am a first time poster on the group. I have long admired Steve's rigs, but missed out on the kits. Finally I broke down and ordered a MTR-5b from LNR. The problem is I really would like to have a rig that covers 80M, which this rig does not. I read of the newly announced LNR MTR-4b that will have it, but then I would have to sell this one at a loss to buy it. Also the 4b will be 50% heavier, due to a new case. Not so backpacking friendly...

I would like to ask the group about the possibility of adding 80M to the LNR MTR-5b. My questions are:

1. Will the microcontroller programming support 80M operation?

2. The only practical place to add it would seem to be in the place of the 15M switch position (since the rig is built, I would not have to move all the components to put in its "proper" place). Would this work?

3. Does anyone know the components that would have to change, the new values and the board locations to place them?

I looked at the files section for the 80M conversion, but this seems to apply to new builds. I bet there are many with the LNR rigs that would want to do this mod (if possible).

Many thanks,

john N5HPB

17447. RE: [AT_Sprint] LNR MTR-5b 80M conversion?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-25 01:19:08 UTC
From: <steve.kd1jv@...>
Topic: 17446 Message: 17447
Attachments: 1 described; binary payloads are missing from this source WARC

If you have the 5B with the 4 line display and blue backlight, it is identical the kit version so the info for converting to 80 also applies to that board.

You could convert the 15M location to 80, but it’s not as clean a conversion as using the 40M location. Fixed caps need to be added across the trimmer and there is no place to put them. Also in the Tx LPF, the cap between the two inductors is made from 2, 680 pfd caps and there is only a spot for one, but these can be stacked with some care.

If you can’t figure out how to shift the parts over using the documentation supplied for the kit, and need step by step instructions, you probably shouldn’t attempt this.

Steve KD1JV

Hi All:

I am a first time poster on the group. I have long admired Steve's rigs, but missed out on the kits. Finally I broke down and ordered a MTR-5b from LNR. The problem is I really would like to have a rig that covers 80M, which this rig does not. I read of the newly announced LNR MTR-4b that will have it, but then I would have to sell this one at a loss to buy it. Also the 4b will be 50% heavier, due to a new case. Not so backpacking friendly...

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3. Does anyone know the components that would have to change, the new values and the board locations to place them?

I looked at the files section for the 80M conversion, but this seems to apply to new builds. I bet there are many with the LNR rigs that would want to do this mod (if possible).

Many thanks,

john N5HPB

17448. New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-29 15:54:37 UTC
From: AT_Sprint@yahoogroups.com
Topic: 1459 Message: 17448

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the AT_Sprint
group.

File : /MTR5B in Pico Box.jpg
Uploaded by : k1jdjohn <k1jdjohn@...>
Description : New use for that plastic Pico Paddle box? This MTR-5B (the second one I've built) fits if you remove the box's inner plastic partitions. Total weight is 11.2 oz. Since the paddle is mounted upside down under the top cover flipped down, the paddle wire was cut and reversed
73, John K1JD

You can access this file at the URL:
https://groups.yahoo.com/neo/groups/AT_Sprint/files/MTR5B%20in%20Pico%20Box.jpg

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

k1jdjohn <k1jdjohn@...>

17449. Re: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-29 20:18:58 UTC
From: n8xx@...
Topic: 17212 Message: 17449

Hadn't heard about this thread because I laid up in the hospital and rehab after complications of a hip replacement. Glad I haven't missed the roll out/sale of the kits.

I'll certainly be on the lookout when Steve declares that the rigs are for sale. Whatever he calls them is fine with me. Itty Bitty one bander (or itty bitty one band aid - if the rig fits in a band aid tin) is fine with me.

As they say in New Orleans, when they're celebrating, the sale of these kit will be one upon which to exclaim:
"Laissez le bon temps rouler"

72/73 de n8xx Hg
QRP >99.44% of the time

17450. Re: Update: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-31 23:53:37 UTC
From: n8xx@...
Topic: 17438 Message: 17450

I'm waiting with bated breath. I hope I'll be able to build this one without help. :)

I have one or two trips in early March. Hope I don't miss out on the initial sales.

72/73 de n8xx Hg
QRP >99.44% of the time

17451. [AT_Sprint] Re: Update: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-01-31 23:57:44 UTC
From: Hank Greeb
Topic: 17438 Message: 17451

Don't know what happened to the original of this.... Harly readable.

I said: I'm waiting with bated breath. I hope I'll be able to build
this one without help.

I have one or two trips in early March. Hope I don't miss out on the
initial sales.

72/73 de n8xx Hg
QRP >99.44% of the time

17452. New rig pics

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-01 21:00:05 UTC
From: n1rx@...
Topic: 17452 Message: 17452

For your curious folks...
Yesterday, Steve posted a couple pictures of the board for his new single band rig to his Facebook page. For your enjoyment, I have posted copies here in a new folder.
-Bruce N1RX

17453. Re: New rig pics

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-01 21:23:23 UTC
From: n8xx@...
Topic: 17452 Message: 17453

What's the overall dimensions of the new rig? No scale seems provided.

Steve was mentioning that it might fit inside a Band-Aid box or similar.

Anyone remember the size?

I'll repeat myself. I'll repeat myself. I'm awaiting the announcement of the sale of kits on pinzandneedles.

Thanks in advance.

72/73 de n8xx Hg
QRP >99.44% of the time

17454. Re: New rig pics

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-01 22:38:00 UTC
From: n1rx@...
Topic: 17452 Message: 17454

The only scale provided is the pen in one of the photos. I am sure Steve will chime in with some dimensions, once he's comfortable that it will not change... I never try to come up with a case before I have the board built myself. Then I can be sure of the dimensions needed, given any choices I make on knob sizes, relocating jacks, etc. Personally, I never like having the headphone jack right next to the key jack. So, sometimes I will "remote" one those, even though there is provision for mounting them to the board...
dit dit
-Bruce, N1RX

17455. Re: [AT_Sprint] Re: New rig pics

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-01 23:53:27 UTC
From: Hank Greeb
Topic: 17452 Message: 17455

With all the talk of 3D printing, is anyone thinking of making a
prototype printed case?

On 2/1/2017 5:38 PM, n1rx@... [AT_Sprint] wrote:
>
>
> The only scale provided is the pen in one of the photos. I am sure
> Steve will chime in with some dimensions, once he's comfortable that
> it will not change... I never try to come up with a case before I have
> the board built myself. Then I can be sure of the dimensions needed,
> given any choices I make on knob sizes, relocating jacks, etc.
> Personally, I never like having the headphone jack right next to the
> key jack. So, sometimes I will "remote" one those, even though there
> is provision for mounting them to the board...
> dit dit
> -Bruce, N1RX

17456. Re: New rig pics

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-02 00:15:59 UTC
From: jgaffke@...
Topic: 17452 Message: 17456

Better than the pen are those DIP28 pins on 0.1" centers. Unfortunately, the photographs are a bit distorted, would be tough to come up with accurate dimensions. I'm getting different numbers on the two photos, but figure about 3.25 inches square. Will fit nicely into a band-aid box if you cut the board in half first. Ahh, they're all cardboard these days anyway.

---In AT_Sprint@yahoogroups.com, <n1rx@...> wrote :

The only scale provided is the pen in one of the photos.

17457. Re: [AT_Sprint] Re: New rig pics

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-02 00:38:50 UTC
From: Hank Greeb
Topic: 17452 Message: 17457

what kind of 3 cell lipo would fit in a 3.25" square container?

On 2/1/2017 7:15 PM, jgaffke@... [AT_Sprint] wrote:
>
>
> Better than the pen are those DIP28 pins on 0.1" centers.
> Unfortunately, the photographs are a bit distorted, would be tough to
> come up with accurate dimensions. I'm getting different numbers on
> the two photos, but figure about 3.25 inches square. Will fit nicely
> into a band-aid box if you cut the board in half first. Ahh, they're
> all cardboard these days anyway.
>
> ---In AT_Sprint@yahoogroups.com, <n1rx@...> wrote :
> The only scale provided is the pen in one of the photos.
>
>
>

17458. Re: [AT_Sprint] New rig pics

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-02 01:39:23 UTC
From: Steve Saslow
Topic: 17452 Message: 17458

I apologize but I cannot find what you are talking about! “...posted copies here in a new folder.” I tried going to Facebook but got 3 wrong Steve Webers…sorry I’m just not so hip I just know how to do this…
-baffled! -Steve K7EW

On Feb 1, 2017, at 1:00 PM, n1rx@comcast.net<mailto:n1rx@comcast.net> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

For your curious folks...

Yesterday, Steve posted a couple pictures of the board for his new single band rig to his Facebook page. For your enjoyment, I have posted copies here in a new folder.

-Bruce N1RX

17459. Re: [AT_Sprint] New rig pics

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-02 01:47:10 UTC
From: n1rx@...
Topic: 17452 Message: 17459

go to the AT_Sprint Yahoo Group web page and click the "photos" icon near the top of the page...
-Bruce N1RX

17460. Re: [AT_Sprint] New rig pics

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-02 01:51:31 UTC
From: Steve Saslow
Topic: 17452 Message: 17460

-got it! Thank you, Bruce! (-Steve K7EW)
On Feb 1, 2017, at 5:47 PM, n1rx@comcast.net<mailto:n1rx@comcast.net> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

go to the AT_Sprint Yahoo Group web page and click the "photos" icon near the top of the page...

-Bruce N1RX

17461. Re: [AT_Sprint] New rig pics

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-02 01:47:58 UTC
From: Marcus B
Topic: 17452 Message: 17461

It took me a while, but it's under "Photos".

I also noticed some spam in links.

73, Marcus, vk5wtf / vk3tst

On Thu, 2 Feb 2017 at 12:09 Steve Saslow k7ew@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> I apologize but I cannot find what you are talking about! “...posted
> copies here in a new folder.” I tried going to Facebook but got 3 wrong
> Steve Webers…sorry I’m just not so hip I just know how to do this…
> -baffled! -Steve K7EW
>
>
> On Feb 1, 2017, at 1:00 PM, n1rx@... [AT_Sprint] <
> AT_Sprint@yahoogroups.com> wrote:
>
>
> For your curious folks...
>
> Yesterday, Steve posted a couple pictures of the board for his new single
> band rig to his Facebook page. For your enjoyment, I have posted copies
> here in a new folder.
>
> -Bruce N1RX
>
>
>
>

17462. FW: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-02 03:35:29 UTC
From: <steve.kd1jv@...>
Topic: 17462 Message: 17462

Sent from Mail for Windows 10

>what kind of 3 cell lipo would fit in a 3.25" square container?

The board is 3.6” wide and 3.4” deep.

There is a distance of 2.2” between the processor socket and the DC power/BNC jack. All the parts in between are low profile smt.

A 118650 cell is 0.72” diameter, so three stacked as close together as possible will just fit, being a total of 2.16”. The battery has a length of 2.5” , so the board width is okay.

Hum, I think I need to make the board a couple of tenths longer so 118650 cells can be used with holders. I can go up to 4” before the board price increases.

The smaller 116325 cells would fit better, but I can’t find battery holders for that size. You don’t want to be trying to solder wire to the ends of these batteries, they need to be tack welded – at the factory!

There are pads to connect to a battery pack on the board, connected between the DC power jack/ reverse polarity diode and the ON/OFF switch. With a 3S charger/equalizer board added, you can charge direct from the power jack.

I’m happy with the way this second pass came out. I added an op amp and now have both an audio low pass and band pass filter, along with the standard 4 xtal IF filter. MDS is at least 0.2 uV. Added AGC to the headphone amp to keep the peak voltage to no more then 1.2V P-P. There’s a little bit of hash in the audio from the display multiplexing with the control all the way up, but otherwise is pretty low noise.

For control it has basic functions.
50/200 Hz tuning rates
RIT with +/- delta display
Code speed 5-30 WPM
Two 63 character message memories.
Supply voltage Min 10V, Max 13V Optimized for around 12V.

Pre-programmed bands : 80/60/40/30/20/17 but band specific parts supplied for 40/30/20.

Currently there is no straight key or tune mode, but those should be added soon.

Now it’s mostly a matter of ordering parts and writing the assembly manual.

73, Steve KD1JV

17463. new radio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-02 03:36:31 UTC
From: William S. Hogin
Topic: 17463 Message: 17463

Nice little rig. Very clean ckt board.
Scott, KN7DHF

Sent from Yahoo Mail on Android

17464. Re: [AT_Sprint] FW: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-02 04:35:01 UTC
From: Hank Greeb
Topic: 17462 Message: 17464

Thanks, Steve. I'll try to be amongst the first in line when you say "order away!"

I vote for straight key mode - I haven't mastered an electronic monstrosity/keyer. Too much "Lake Erie Swing" from years of using a Vibroplex Bug. :)

72/73 de n8xx Hg
QRP >99.44% of the time

On 2/1/2017 10:35 PM, steve.kd1jv@... [AT_Sprint] wrote:

> Sent from Mail <https://go.microsoft.com/fwlink/?LinkId=550986> for
> Windows 10
>
>
> >what kind of 3 cell lipo would fit in a 3.25" square container?
>
> The board is 3.6” wide and 3.4” deep.
>
> There is a distance of 2.2” between the processor socket and the DC
> power/BNC jack. All the parts in between are low profile smt.
>
> A 118650 cell is 0.72” diameter, so three stacked as close together as
> possible will just fit, being a total of 2.16”. The battery has a
> length of 2.5” , so the board width is okay.
>
> Hum, I think I need to make the board a couple of tenths longer so
> 118650 cells can be used with holders. I can go up to 4” before the
> board price increases.
>
> The smaller 116325 cells would fit better, but I can’t find battery
> holders for that size. You don’t want to be trying to solder wire to
> the ends of these batteries, they need to be tack welded – at the factory!
>
> There are pads to connect to a battery pack on the board, connected
> between the DC power jack/ reverse polarity diode and the ON/OFF
> switch. With a 3S charger/equalizer board added, you can charge
> direct from the power jack.
>
> I’m happy with the way this second pass came out. I added an op amp
> and now have both an audio low pass and band pass filter, along with
> the standard 4 xtal IF filter. MDS is at least 0.2 uV. Added AGC to
> the headphone amp to keep the peak voltage to no more then 1.2V P-P.
> There’s a little bit of hash in the audio from the display
> multiplexing with the control all the way up, but otherwise is pretty

> low noise.
>
> For control it has basic functions.
>
> 50/200 Hz tuning rates
> RIT with +/- delta display
> Code speed 5-30 WPM
> Two 63 character message memories.
> Supply voltage Min 10V, Max 13V Optimized for around 12V.
>
> Pre-programmed bands : 80/60/40/30/20/17 but band specific parts
> supplied for 40/30/20.
>
> Currently there is no straight key or tune mode, but those should be
> added soon.
>
> Now it’s mostly a matter of ordering parts and writing the assembly
> manual.
>
> 73, Steve KD1JV

17465. Re: [AT_Sprint] FW: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-02 11:23:23 UTC
From: David Wilcox
Topic: 17462 Message: 17465

Hey those "swings" add character to the ham bands. I have added a brass tube with brass rod extension to my Vibroplex bugs and have sliding fishing weights on the rod. I can slow down to 10 WPM if needed. May not be kosher to the high speed guys but works and sounds less sterile compared to electronic keyers. Am reading about spies and Paraset radios used behind the lines in WWII. The Germans could listen and duplicate the senders fist and then Faked out London if the spy was captured. Quite common from Holland.

Dave K8WPE

> On Feb 1, 2017, at 11:35 PM, Hank Greeb n8xx@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> Thanks, Steve. I'll try to be amongst the first in line when you say "order away!"
>
> I vote for straight key mode - I haven't mastered an electronic monstrosity/keyer. Too much "Lake Erie Swing" from years of using a Vibroplex Bug. :)
>
> 72/73 de n8xx Hg
> QRP >99.44% of the time
>
>> On 2/1/2017 10:35 PM, steve.kd1jv@gmail.com [AT_Sprint] wrote:
>> Sent from Mail for Windows 10
>>
>>
>> >what kind of 3 cell lipo would fit in a 3.25" square container?
>>
>> The board is 3.6” wide and 3.4” deep.
>>
>> There is a distance of 2.2” between the processor socket and the DC power/BNC jack. All the parts in between are low profile smt.
>>
>> A 118650 cell is 0.72” diameter, so three stacked as close together as possible will just fit, being a total of 2.16”. The battery has a length of 2.5” , so the board width is okay.
>>
>> Hum, I think I need to make the board a couple of tenths longer so 118650 cells can be used with holders. I can go up to 4” before the board price increases.
>>
>> The smaller 116325 cells would fit better, but I can’t find battery holders for that size. You don’t want to be trying to solder wire to the ends of these batteries, they need to be tack welded – at the factory!
>>
>> There are pads to connect to a battery pack on the board, connected between the DC power jack/ reverse polarity diode and the ON/OFF switch. With a 3S charger/equalizer board added, you can charge direct from the power jack.

>>
>> I’m happy with the way this second pass came out. I added an op amp and now have both an audio low pass and band pass filter, along with the standard 4 xtal IF filter. MDS is at least 0.2 uV. Added AGC to the headphone amp to keep the peak voltage to no more then 1.2V P-P. There’s a little bit of hash in the audio from the display multiplexing with the control all the way up, but otherwise is pretty low noise.
>>
>> For control it has basic functions.
>>
>> 50/200 Hz tuning rates
>> RIT with +/- delta display
>> Code speed 5-30 WPM
>> Two 63 character message memories.
>> Supply voltage Min 10V, Max 13V Optimized for around 12V.
>>
>> Pre-programmed bands : 80/60/40/30/20/17 but band specific parts supplied for 40/30/20.
>>
>> Currently there is no straight key or tune mode, but those should be added soon.
>>
>> Now it’s mostly a matter of ordering parts and writing the assembly manual.
>>
>> 73, Steve KD1JV
>
>

17466. Re: [FS] MTR 20/30 & ATS-4b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-02 08:29:30 UTC
From: sq1lzt@...
Topic: 17444 Message: 17466

The auctions are renewed and with new prices:

MTR 20/30 (finished)
http://ebay.com/itm/322410144127 http://ebay.com/itm/322395115021

ATS-4b (to be finished):
http://ebay.com/itm/322410153027 http://ebay.com/itm/322410153027
73 de Remi HF1RF /ex-SQ1LZT/

17467. Re: [AT_Sprint] FW: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-02 16:14:45 UTC
From: n8xx@...
Topic: 17462 Message: 17467

A club to which I belonged in SW Ohio had a "slider" type weight which could slow the bug down to very slow code. I generally switched to using the "DASH" key as a sideswiper if I got below about 15 WPM or so. It is very easy for me to send with the J-38 key at up to about 20 WPM, but faster than that the code gets rough.

But, if the rig is set up ONLY to use the built in keyer, then plugging in a standard key won't do anything except send a series of dots or dashes.

I'l hazard that >99.44% of my code sending is via computer these daze. That kind of keying also requires a "hand key" mode, because the computer generates on off keying via a serial port. If I'm testing, or don't have my computer hooked to the rig, I use the J-38. >99.44% of the people will slow down to 20 WPM, and if they don't I usually can copy them unless they insist on using cut numbers for things other than 5NN.

72/73 de n8xx Hg
QRP >99.44% of the time

17468. Re: FW: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-03 08:45:44 UTC
From: vk3byd@...
Topic: 17462 Message: 17468

Steve,

Any chance of getting 160m added to the pre-programmed bands?

73,
Warren vk3byd

17469. RE: [AT_Sprint] Re: FW: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-03 16:36:01 UTC
From: <steve.kd1jv@...>
Topic: 17462 Message: 17469

I suppose, but I don’t see how it would be practical. The double tuned Rx input filter will be very narrow and you’ll need to use T50 sized cores in the Tx filter to get enough inductance and those won’t fit on the board very well. And I have no idea what values to suggest other then to double the values for 80M and tweak from there.

Steve,

Any chance of getting 160m added to the pre-programmed bands?

73,
Warren vk3byd

17470. RE: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-03 16:44:22 UTC
From: <steve.kd1jv@...>
Topic: 17462 Message: 17470

I added 0.2” to the length of the board so 3, 18650 cells with holders will fit under the board between the processor socket at the front and the DC/BNC jack at the rear.

I ordered some single cell holders and 9900 mAh batteries from China. Free shipping, so will take a while to get here. What’s the chances the batteries will actually deliver 9900 mAh?

73, Steve KD1JV

17471. RE: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-03 18:07:37 UTC
From: jgaffke@...
Topic: 17462 Message: 17471

Zero. As you well know. Test them, I'm very curious.
Honest vendors will be claiming somewhere between 2000 and 3000mah.
Some really spendy ones can do maybe 3300mah.

Here's somebody who tested something similar, saw around 700mah.
http://www.candlepowerforums.com/vb/showthread.php?414719-Possibly-the-worst-18650s-around-9800mAh(!)-UltraFire http://www.candlepowerforums.com/vb/showthread.php?414719-Possibly-the-worst-18650s-around-9800mAh(!)-UltraFire
Perhaps those were factory fallouts, as they are only rated at 9800mah.

A picture here of the factory, about 5 posts down:
http://www.candlepowerforums.com/vb/showthread.php?416545-Are-these-cheap-18650-9900mah-batteries-any-good http://www.candlepowerforums.com/vb/showthread.php?416545-Are-these-cheap-18650-9900mah-batteries-any-good
OK, that looks to me like some sort of battery recycling operation. But I can believe somebody out there is taking old laptop batteries, wrapping the cells in shiny new plastic, and reselling.

If you want a safe bet, go for Sanyo or Panasonic, and get them through a reputable dealer. On the other hand, I bought a dozen 18650's from a local electronics surplus store at $1 each, and they're doing just fine, maybe 2500mah. Apparently some manufacturer out there canceled a product line.

Jerry, KE7ER

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :
What’s the chances the batteries will actually deliver 9900 mAh?

17472. Re: [AT_Sprint] RE: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-03 18:59:07 UTC
From: Hank Greeb
Topic: 17462 Message: 17472

I'd say the probability is closer to zero than to one. :)

If I remember correctly, 18650's are "A" cells, is typically 2.5 AH, with a few, high quality cells (LG and elswhere) being as high as 3.5 AH. There are all sorts of warnings about Chinese vendors rebranding cells and claiming all sorts of impossibly high capacity. One source of info on these is at:
https://www.quora.com/What-is-the-maximum-capacity-of-a-18650-battery

72/73 de n8xx Hg

On 2/3/2017 11:44 AM, steve.kd1jv@... [AT_Sprint] wrote:

What’s the chances the batteries will actually deliver 9900 mAh?

17473. Re: [AT_Sprint] RE: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-03 19:41:56 UTC
From: Shirley Márquez Dúlcey
Topic: 17462 Message: 17473

Perhaps they got mAh and mWh confused. The latter is plausible.

On Feb 3, 2017 1:59 PM, "Hank Greeb n8xx@... [AT_Sprint]" <
AT_Sprint@yahoogroups.com> wrote:

>
>
> I'd say the probability is closer to zero than to one. :)
>
> If I remember correctly, 18650's are "A" cells, is typically 2.5 AH, with
> a few, high quality cells (LG and elswhere) being as high as 3.5 AH. There
> are all sorts of warnings about Chinese vendors rebranding cells and
> claiming all sorts of impossibly high capacity. One source of info on
> these is at:
> https://www.quora.com/What-is-the-maximum-capacity-of-a-18650-battery
>
> 72/73 de n8xx Hg
>
> On 2/3/2017 11:44 AM, steve.kd1jv@... [AT_Sprint] wrote:
>
> What’s the chances the batteries will actually deliver 9900 mAh?
>
>
>
>

17474. Re: [AT_Sprint] RE: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-03 20:05:32 UTC
From: jgaffke@...
Topic: 17462 Message: 17474

I sincerely doubt it. This is happening across multiple vendors, each trying to get Steve to click on their ad by inflating some number a bit beyond what their competitor has dared. And plenty of people buy it and give a positive review, because the battery works well enough and they have no idea what those numbers mean anyway.

Here's another case of battery specmanship:
http://www.cloudynights.com/topic/551662-new-power-pack-at-harbor-freight/
http://www.cloudynights.com/topic/551662-new-power-pack-at-harbor-freight/

There's cheaper: http://www.tomtop.com/batteries-1426/p-k4267us.html?aid=TTEDM170124&utm_source=EDM&utm_medium=EDM&utm_content=TT-EDM-TTEDM170124 http://www.tomtop.com/batteries-1426/p-k4267us.html?aid=TTEDM170124&utm_source=EDM&utm_medium=EDM&utm_content=TT-EDM-TTEDM170124
Again, these get positive reviews. Rather amazing such a dinky thing can give the couple hundred amps to start a car, but apparently it does. For a few seconds.

Jerry

---In AT_Sprint@yahoogroups.com, <mark@...> wrote :
Perhaps they got mAh and mWh confused. The latter is plausible.

17475. Re: [AT_Sprint] RE: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-03 22:37:35 UTC
From: Steven Weber
Topic: 17462 Message: 17475

I sincerely doubt it.

Well, the battery case is clearly labeled "9900 mah" and if you can't trust an ebay seller with a name like "Small Luckapen" who can you trust? You don't want to buy a wimpy 2300 mah battery now do you? In any event, I'm only out $6.35 for 4 batteries and I'm sure they will run the rig for a while. I'll find out in a few weeks to a month. Which reminds me, I really should see how much current this rig draws. I'm guessing it will be on the high side 50-60 ma maybe?

Steve KD1JV

17476. RE: [AT_Sprint] Re: FW: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-04 02:38:21 UTC
From: vk3byd@...
Topic: 17462 Message: 17476

Thanks Steve,
Yes I understand there are some problems pushing the operating frequency down to 160m.
Off board filtering may be practical way to manage the larger components.

I look forward to having a go, if I am lucky enough to get one :)

73,
Warren vk3byd

17477. Re: New Rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-04 08:18:21 UTC
From: bubnikv .
Topic: 17462 Message: 17477

The laptop cylindrical liion cells are rated at max. 2400mAh. Working cells salvaged from a dead laptop battery pack have their capacity roughly halved in my experience.
Vojtech

17478. For Sale: Unbuilt MTR5B with case, touch keyer circuit, more

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-04 19:08:14 UTC
From: W3DX@...
Topic: 17478 Message: 17478

I have an unbuilt MTR5B that I'm selling for exactly what I paid for it. (I didn't get one of the kits when they originally came out, so I had to pay a premium to buy this one.) The kit comes with a bunch of extras:

--Unbuilt MTR5B
--Case kit from LNR Electronics (same case as supplied with the LNR radios)
--Digikeyer shaft encoder to provide frequency knob for radio (This is an option described in the User's guide.)
--Czech touch paddle circuit board to provide touch paddles to the radio (board is about the size of a postage stamp)
--Texas Instruments MSP-EXP430G2 Launch Pad circuit board to reprogram the chip. (The original firmware on the chip came with a bug that has to be fixed. The firmware can be found on this Yahoo Group. Using this circuit board, it's very easy to reprogram the chip. I've used this TI MSP circuit board to reprogram another MTR5B, so I've already attached the wires to it to make it very easy to use.)

I'm asking $320 for everything, again, that's what I paid for it. That includes Priority shipping in the United States. I'm happy to ship to DX locations for an additional $10.

Best,

Rob

17479. Re: For Sale: Unbuilt MTR5B with case, touch keyer circuit, more

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-05 03:41:09 UTC
From: nx4j@...
Topic: 17478 Message: 17479

Rob,

Would you be interested in selling just the kit and the case? I'm not too interested in the other items and already have a Launchpad.

Thanks,
Alan
NX4J

17480. Re: For Sale: Unbuilt MTR5B with case, touch keyer circuit, more

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-05 17:20:31 UTC
From: W3DX@...
Topic: 17478 Message: 17480

Alan-

Sure. Please send me a private email, and we can work out the details.

Best, Rob

17481. Re: For Sale: Unbuilt MTR5B with case, touch keyer circuit, more

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-06 17:03:33 UTC
From: W3DX@...
Topic: 17478 Message: 17481

Hi Everyone. The kit has been sold. Again, sold for my cost. Best, Rob

17482. Re: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-06 19:52:53 UTC
From: dgauding@...
Topic: 17212 Message: 17482

---In AT_Sprint@yahoogroups.com, <jameshickox@...> wrote :

I had a ATS3B. I miss it terribly. Did I mention I miss it terribly? Anyone gate a spare they want to get rid of?

Anyway, rain it on PSK31. Worked everything I wanted to.

72/73
James

Sent via the Samsung Galaxy S7, an AT&T 4G LTE smartphone

17483. Re: [AT_Sprint] Re: New rig in the works

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-06 23:46:28 UTC
From: Steve Saslow
Topic: 17212 Message: 17483

Hello James! I do have one (AT Sprint 3B), very likely to be such (spare, could perhaps part with). There are 2 Altoids-type metal cases, painted solid yellow, so I can't say it's Altoids. One has the transceiver in it, plus soft clear rubber round feet, plus a plug-in adapter to the more common battery connector, plus I added a wee slide switch in back + a 22 pF cap to provide a choice of wideband - narrow as designed. The other case contains the remaining 5 plug-in filters. All appears to have seen either very careful or very little use, or both.
Please use qrz and email me off of here, or we may be able to get in touch by telephone via that route… 72/73/7-something! Steve (you rain it?)

On Feb 6, 2017, at 11:52 AM, dgauding@sbcglobal.net<mailto:dgauding@sbcglobal.net> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

---In AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>, <jameshickox@...> wrote :

I had a ATS3B. I miss it terribly. Did I mention I miss it terribly? Anyone gate a spare they want to get rid of?

Anyway, rain it on PSK31. Worked everything I wanted to.

72/73
James

Sent via the Samsung Galaxy S7, an AT&T 4G LTE smartphone

17484. LNR MTR5B needs matched antenna?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-13 19:51:40 UTC
From: n4elm@...
Topic: 17484 Message: 17484

I have a new MTR5B and one thing that I have not seen mentioned is how tolerant it is to an antenna mismatch.
Other radios I have had that use the BS170s as finals in parallel (Dualbander, Tribander) have cautions about only operating into a resonant antenna and not to use an in-line auto tuner due to SWR transients damaging the finals.
The MTR5 manual provides no guidance.

Thanks - Dave, N4ELM

17485. Re: [AT_Sprint] LNR MTR5B needs matched antenna?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-13 20:14:06 UTC
From: Hank Greeb
Topic: 17484 Message: 17485

Don't know about the MTR series, but the AT-Series series suggeste operating with a Tayloe bridge, or similar, so SWR won't be >2.0 maximum, if you're running at 12 VDC. I've always run my AT-Sprint series rig at 9 VDC ~ 3 watts out, and have never blown a final, even though the instantaneous SWR goes wild while the T-1 or other auto tuner seeks a satisfactory SWR.

It is always best to be kind to those finals.

72/73 de n8xx Hg
QRP >99.44% of the time

On 2/13/2017 2:51 PM, n4elm@... [AT_Sprint] wrote:

I have a new MTR5B and one thing that I have not seen mentioned is how tolerant it is to an antenna mismatch.

Other radios I have had that use the BS170s as finals in parallel (Dualbander, Tribander) have cautions about only operating into a resonant antenna and not to use an in-line auto tuner due to SWR transients damaging the finals.

The MTR5 manual provides no guidance.

Thanks - Dave, N4ELM

17486. RE: [AT_Sprint] LNR MTR5B needs matched antenna?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-13 20:07:53 UTC
From: Fred Maas
Topic: 17484 Message: 17486

Yes, it requires a matched antenna, and ATU is risky unless you throttle the voltage down to say nine volts.

73 fred kt5x (aka WS0TA)

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Monday, February 13, 2017 12:52 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] LNR MTR5B needs matched antenna?

I have a new MTR5B and one thing that I have not seen mentioned is how tolerant it is to an antenna mismatch.

Other radios I have had that use the BS170s as finals in parallel (Dualbander, Tribander) have cautions about only operating into a resonant antenna and not to use an in-line auto tuner due to SWR transients damaging the finals.

The MTR5 manual provides no guidance.

Thanks - Dave, N4ELM

17487. Re: [AT_Sprint] LNR MTR5B needs matched antenna?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-13 21:08:05 UTC
From: Hank Greeb
Topic: 17484 Message: 17487

I suggest you read the manual for the 5B on this forum. it has specific instructios on how to use an an atu.

On 2/13/2017 2:51 PM, n4elm@... [AT_Sprint] wrote:

I have a new MTR5B and one thing that I have not seen mentioned is how tolerant it is to an antenna mismatch.

Other radios I have had that use the BS170s as finals in parallel (Dualbander, Tribander) have cautions about only operating into a resonant antenna and not to use an in-line auto tuner due to SWR transients damaging the finals.

The MTR5 manual provides no guidance.

Thanks - Dave, N4ELM

17488. Re: [AT_Sprint] LNR MTR5B needs matched antenna?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-13 21:14:06 UTC
From: ian simpson
Topic: 17484 Message: 17488

if you use a tayloe bridge swr measurement that should protect things adequately during atu adjustment

regards - Ian gm0sim

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of 'Fred Maas' just.one.hill@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: 13 February 2017 20:07
To: AT_Sprint@yahoogroups.com
Subject: RE: [AT_Sprint] LNR MTR5B needs matched antenna?

Yes, it requires a matched antenna, and ATU is risky unless you throttle the voltage down to say nine volts.

73 fred kt5x (aka WS0TA)

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Monday, February 13, 2017 12:52 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] LNR MTR5B needs matched antenna?

I have a new MTR5B and one thing that I have not seen mentioned is how tolerant it is to an antenna mismatch.

Other radios I have had that use the BS170s as finals in parallel (Dualbander, Tribander) have cautions about only operating into a resonant antenna and not to use an in-line auto tuner due to SWR transients damaging the finals.

The MTR5 manual provides no guidance.

Thanks - Dave, N4ELM

17489. RE: [AT_Sprint] LNR MTR5B needs matched antenna?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-13 21:08:25 UTC
From: <steve.kd1jv@...>
Topic: 17484 Message: 17489

It’s still a good idea NOT to transmit into a poorly matched load when running the rig at a full gallon and use a resistive SWR bridge.

However, seeing that there are now a boat load of rigs with BS170 finals in them out there, if anyone has burnt one out I’m not aware of it. Either everyone of those users has been super careful (which seems unlikely) or there is no need to worry any more (which is more likely). So, the warnings were no longer felt to be necessary.

The first few versions the ATS rigs used 2N7000 finals and those did have a problem and after the switch over to BS170’s the high SWR warnings were carried over to be on the safe side. Like the government likes to say “out of an abundance of caution” these warnings are issued, even though there is absolutely no creditable evidence of a threat.

Steve KD1JV

I have a new MTR5B and one thing that I have not seen mentioned is how tolerant it is to an antenna mismatch.
Other radios I have had that use the BS170s as finals in parallel (Dualbander, Tribander) have cautions about only operating into a resonant antenna and not to use an in-line auto tuner due to SWR transients damaging the finals.
The MTR5 manual provides no guidance.

Thanks - Dave, N4ELM

17490. Re: LNR MTR5B needs matched antenna?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-13 21:26:34 UTC
From: J. Fielden
Topic: 17484 Message: 17490

Not sure about the specs, but I've used a tuner (Elecraft T1) many times
with my mtr5b running about 3-4 watts.

James - wa4ar
--
72/73, Jim - wa4ar

17491. Re: LNR MTR5B needs matched antenna?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 14:18:01 UTC
From: John K1JD
Topic: 17484 Message: 17491

My KD1JV radios (an ATS-4A and a pair of MTR-5Bs) have suffered instances of transmitting into various mismatches from open through short circuit on the bench and on SOTA peaks. Stuff happens, but I've never had to replace the finals in any of the radios. In my experience, they are bulletproof.

73
John K1JD

17492. Re: [AT_Sprint] Re: LNR MTR5B needs matched antenna?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 14:54:17 UTC
From: Hank Greeb
Topic: 17484 Message: 17492

You are VERY lucky IF you're using 12 VDC power supply. 9 volts better,
6 volts best for tune up. In each manual I've seen there a BIG watchout
on tuneup when using 12 VDC.

72/73 de n8xx Hg

On 2/14/2017 9:18 AM, John K1JD k1jdjohn@... [AT_Sprint] wrote:
> My KD1JV radios (an ATS-4A and a pair of MTR-5Bs) have suffered instances of transmitting into various mismatches from open through short circuit on the bench and on SOTA peaks. Stuff happens, but I've never had to replace the finals in any of the radios. In my experience, they are bulletproof.
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> 73
> John K1JD

17493. Re: [AT_Sprint] Re: LNR MTR5B needs matched antenna?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 15:03:11 UTC
From: Colin Evans
Topic: 17484 Message: 17493

Hank,

With respect, Steve provided the reason for the warnings in the manual. The original FETs used were 2N7000s, the later rigs use BS170s. BS170s are more robust.

I run my three MTRs from a 3S LiPo and I have never had any issues whatsoever.

Like Steve said, I think the conclusion that can be drawn from having hundreds of rigs in the field now, is that the design is sound and the PA is not liable to pop off athe any given moment. I don't think luck has anything to do with it.

Treat the rigs with the usual care that should be afforded to any radio and all will be fine.

Colin
M1BUU

On 14 Feb 2017 14:54, "Hank Greeb n8xx@... [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:

> You are VERY lucky IF you're using 12 VDC power supply. 9 volts better,
> 6 volts best for tune up. In each manual I've seen there a BIG watchout
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> 72/73 de n8xx Hg
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> Yahoo Groups Links
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17494. Re: [AT_Sprint] Re: LNR MTR5B needs matched antenna?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 15:50:43 UTC
From: Hank Greeb
Topic: 17484 Message: 17494

OK i stand corrected. But the MTR-5 manual on this forum has a long paragraph on how to handle ATU's. I still run my AT-Sprints, et cetera on 9 VDC.

72/73 de n8xx Hg

On 2/14/2017 10:03 AM, Colin Evans colin.evans2@... [AT_Sprint] wrote:

Hank,

With respect, Steve provided the reason for the warnings in the manual. The original FETs used were 2N7000s, the later rigs use BS170s. BS170s are more robust.

I run my three MTRs from a 3S LiPo and I have never had any issues whatsoever.

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Colin

M1BUU

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> 73
> John K1JD

17495. do you use the MTR RTC function?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 16:16:18 UTC
From: steve.kd1jv@...
Topic: 17495 Message: 17495

The coin cell battery life in the new 4B/5B rigs used for back up is very short, like 19 days. It seems the new 2x16 display draws much more current then the graphics display used in the original 5B. The battery life in the original 5B doesn't seem to be a whole lot better.

So, we're going to drop the back up battery feature all together. Because of that, I was also going to eliminate the clock feature from the rig. But then I thought that even though the clock would have to be reset every time the rig was turned on, it might still be handy to have, like when out in the field.

So, what do you think? keep the clock feature or drop it?

73, Steve KD1JV

Technical discussion:

The reason the display is connected to the coin cell was simply to make it easier to connect the battery to the processor by using the display's power pin as a via. The graphics display used in the original version of the 5B drew very little current when in rest mode. My initial test showed the stand-by current to be 1-2 uA, but revisiting the issue, it seems it is really more like 20 uA. And at 20 uA with a 25 mah battery has an expected life of 1,250 hours or 52 days. The new 2x16 display draws 55 uA so now the life is only 19 days.

But there is another issue. It takes a few milliseconds for the processor to detect power down and shut down and during that time about 1.5 ma is drawn from the battery. If the rig is turned on and off a lot, that can accelerate draining the battery making it's life shorter. Complicating the issue is when the battery gets weak, it develops a high internal resistance. That little burst of current when the rig is turned off drops the voltage below the safe operating voltage of the processor and can make it glitch, so when you turn the rig back on, it can be locked up and on the wrong band.

I can't find a good way to work around these issues, so the only solution is to eliminate the battery and be done with it. At least until a board rev can be done and power routed past the display, them maybe we'll revisit the back up battery option.

17496. Re: [AT_Sprint] do you use the MTR RTC function?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 16:25:13 UTC
From: Hank Greeb
Topic: 17495 Message: 17496

A stoopyd question.... why not use the coin battery to keep the clock running like in computers? The coin battery in my computers last 4 years or more.

72/73 de n8xx Hg

On 2/14/2017 11:16 AM, steve.kd1jv@... [AT_Sprint] wrote:

The coin cell battery life in the new 4B/5B rigs used for back up is very short, like 19 days. It seems the new 2x16 display draws much more current then the graphics display used in the original 5B. The battery life in the original 5B doesn't seem to be a whole lot better.

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So, what do you think? keep the clock feature or drop it?

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I can't find a good way to work around these issues, so the only solution is to eliminate the battery and be done with it. At leas! t until a board rev can be done and power routed past the display, them maybe we'll revisit the back up battery option.

17497. do you use the MTR RTC function?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 16:51:02 UTC
From: AT_Sprint@yahoogroups.com
Topic: 17495 Message: 17497

[AT_Sprint] An existing poll has been modified, check it out.
Enter your vote now! https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/3228443

Do you use the MTR real time clock function?
Created by: kd1jv

1. Nice feature, but can live without it.
https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/3228443#22358134 (added by: k9ljb
. February 14, 2017)

Thanks!

17498. Re: do you use the MTR RTC function?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 17:01:34 UTC
From: roger.whitaker@...
Topic: 17495 Message: 17498

My approach to the battery problem is to slip a piece of paper into the holder to disable the battery. If I am going to be manually logging during a contest/sprint, etc. it's easy to enable, set the clock and then disable it again when the event is over. That said, it's not a big deal. As I indicated in the poll, "Nice feature, but can live without it." My other QRP rigs don't have an RTC.

I've had my 5B a few weeks now and am having a lot of enjoyment from operating it. My best DX, so far, is Hungary on 40 meters from Illinois with a wire antenna and a 9 Volt battery. :-)

73 K9LJB

17499. Re: [AT_Sprint] do you use the MTR RTC functi on?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 17:28:52 UTC
From: Gil G.
Topic: 17495 Message: 17499

To me the clock is utterly useless...
Gil
AK4YH & F4WBY
--
Sent from Mail.Ru app for Android Tuesday, 14 February 2017, 05:16PM +01:00 from steve.kd1jv@gmail.com [AT_Sprint] AT_Sprint@yahoogroups.com :

>
>The coin cell battery life in the new 4B/5B rigs used for back up is very short, like 19 days. It seems the new 2x16 display draws much more current then the graphics display used in the original 5B. The battery life in the original 5B doesn't seem to be a whole lot better.
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>So, we're going to drop the back up battery feature all together. Because of that, I was also going to eliminate the clock feature from the rig. But then I thought that even though the clock would have to be reset every time the rig was turned on, it might still be handy to have, like when out in the field.
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>
>

17500. Re: do you use the MTR RTC function?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 17:39:35 UTC
From: k7ew@...
Topic: 17495 Message: 17500

if there's no battery-clock thing, I would not miss it.

17501. Re: [AT_Sprint] do you use the MTR RTC function?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 18:23:12 UTC
From: David Wilcox
Topic: 17495 Message: 17501

My battery has lasted since May. Bought it at Dayton last year.

Dave K8WPE

> On Feb 14, 2017, at 11:16 AM, steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> The coin cell battery life in the new 4B/5B rigs used for back up is very short, like 19 days. It seems the new 2x16 display draws much more current then the graphics display used in the original 5B. The battery life in the original 5B doesn't seem to be a whole lot better.
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> 73, Steve KD1JV
>
> Technical discussion:
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>
>
>

>

17502. Re: [AT_Sprint] do you use the MTR RTC function?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 19:09:11 UTC
From: Bob Mueller
Topic: 17495 Message: 17502

I suggest eliminating it as a feature entirely. I'd rather have the clock
not display at all, then have it display the wrong time.

--... ...--
Bob Mueller
K8MD
bob@...

On Tue, Feb 14, 2017 at 1:23 PM, David Wilcox djwilcox01@...
[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> My battery has lasted since May. Bought it at Dayton last year.
>
> Dave K8WPE
>
> On Feb 14, 2017, at 11:16 AM, steve.kd1jv@... [AT_Sprint] <
> AT_Sprint@yahoogroups.com> wrote:
>
>
>
>
> The coin cell battery life in the new 4B/5B rigs used for back up is very
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> the voltage below the safe operating voltage of the processor and can make
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> wrong band.
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> is to eliminate the battery and be done with it. At least until a board rev
> can be done and power routed past the display, them maybe we'll revisit the
> back up battery option.
>
>
>
>

17503. Re: [AT_Sprint] Re: do you use the MTR RTC function?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 18:32:48 UTC
From: Thomas Martin
Topic: 17495 Message: 17503

I considered putting a mercury switch or something on the battery, so I wouldn't have to pop it open to remove the battery...

I built a touch keyer that runs off a 3v lithium cell, it lasted about 3 months on 24/7, but I stuck a mercury switch on that, and just store it upside down when I'm not using it.

73,
-Thom
w8tam

On Tue, Feb 14, 2017 at 12:39 PM, k7ew@...m [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> if there's no battery-clock thing, I would not miss it.
>
>

17504. RE: [AT_Sprint] do you use the MTR RTC function?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-14 20:59:16 UTC
From: Ken Talbott
Topic: 17495 Message: 17504

Keep the clock. Handy for weekend outing.

Ken ke4rg

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Tuesday, February 14, 2017 11:16 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] do you use the MTR RTC function?

The coin cell battery life in the new 4B/5B rigs used for back up is very short, like 19 days. It seems the new 2x16 display draws much more current then the graphics display used in the original 5B. The battery life in the original 5B doesn't seem to be a whole lot better.

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So, what do you think? keep the clock feature or drop it?

73, Steve KD1JV

Technical discussion:

The reason the display is connected to the coin cell was simply to make it easier to connect the battery to the processor by using the display's power pin as a via. The graphics display used in the original version of the 5B drew very little current when in rest mode. My initial test showed the stand-by current to be 1-2 uA, but revisiting the issue, it seems it is really more like 20 uA. And at 20 uA with a 25 mah battery has an expected life of 1,250 hours or 52 days. The new 2x16 display draws 55 uA so now the life is only 19 days.

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I can't find a good way to work around these issues, so the only solution is to eliminate the battery and be done with it. At least until a board rev can be done and power routed past the display, them maybe we'll revisit the back up battery option.

17505. Re: do you use the MTR RTC function?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-15 03:23:17 UTC
From: K1JD John
Topic: 17495 Message: 17505

>> The battery life in the original 5B doesn't seem to be a whole lot better (than 19 days)
This is puzzling. My first MTR-5B (SN004) was completed in October 2015. I really like the RTC and last-used frequency memories. The radio was used most of last year (>100 activations) and was on a SOTA peak today. So...Oct 2015 - Feb 2017 and the original battery is still doing its job - doesn't seem like anything to complain about!

>>The coin cell battery life in the new 4B/5B rigs used for back up is very short, like 19 days
I just completed a new MTR-5B early last month but found the coin battery - battery holder connection to be intermittent. It would work OK for a few days, but then the RTC would be gone the next time the radio was turned on. After several other efforts failed, I inserted a small piece of solder wick between the holder arm and battery thinking extra compression might improve contact. That's worked: over the past 30 days, the new MTR-5B has been used on 4 separate SOTA activations and the backup function has been perfect. It’s already exceeded 19 days projected life.

73,
John K1JD

17506. RE: [AT_Sprint] do you use the MTR RTC function?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-15 04:13:23 UTC
From: Fred Maas
Topic: 17495 Message: 17506

My clock works well, have been surprised how accurate the time stays. While I found the battery connection, the socket into which it fits, to be suspect, after very careful installation it seems to work fine. Has never needed to be replaced, so I don't know why some test would show it only lasting a few weeks. I like having the clock during my SOTA activations a LOT.

73, Fred kt5x aka WS0TA

17507. Re: do you use the MTR RTC function?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-15 06:54:14 UTC
From: colin.evans2@...
Topic: 17495 Message: 17507

I did a SOTA activation not long after completing my MTR5B build. I had just started operating and was using the beacon feature to call CQ when the rig locked up. No matter what I did, I couldn't get the rig to reset.

Unfortunately I had used hex bolts in the case and I had no means to remove the screws, improvising tools didn't work. I noticed that the LCD backlight remained on despite the power switch being in the off position.

Thankfully, I had taken another MTR rig with me to the summit so I managed to complete my SOTA activation. I did another SOTA activation that day, all the while, the MTR5B was left in the car still with the LCD lit up. On my way home, I called in a at hardware shop and bought a hex key.

When I finally opened the MTR5B case, I was able to disconnect the coin cell and then the rig worked fine again. I measured the voltage of the coin cell when I got home and it was still fairly healthy. Due to my knowledge that the coin cell had been powering the LCD backlight for some time, I ordered a new one and then I replaced the original coin cell as soon as the new one showed up in the mail.

My rig has worked fine ever since my initial lock-up experience and the RTC keeps surprisingly good time, I use the clock feature a lot. I keep my MTR5B in a compact camera case and in the pocket, I keep a hex key! :-)

73, Colin M1BUU

17508. do you use the MTR RTC function?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-15 14:33:03 UTC
From: AT_Sprint@yahoogroups.com
Topic: 17495 Message: 17508

[AT_Sprint] An existing poll has been modified, check it out.
Enter your vote now! https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/3228443

Do you use the MTR real time clock function?
Created by: kd1jv

1. SOTA activators use the RTC and REALLY appreciate having it.
https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/3228443#22358378 (added by: k1jdjohn . February 15, 2017)

Thanks!

17509. "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-17 17:58:53 UTC
From: steve.kd1jv@...
Topic: 17509 Message: 17509

I now have most of the parts on hand and the production boards are in transit. I still need to finish adding the Straight key mode to the firmware and figure out filter values for the non- supplied bands. I added 160 and 60 meters to the band selection table.

For 60M, I used the EU allocation of 5351.5 to 5366.5 kHz, which does not quite align with the current US band plan. It seems there's no common world wide band plan yet, there are dozens depending on the country.

I have the assembly manual pretty much finished and will upload it to the files section soon.

I should be ready to take orders by the end of the month and start shipping shortly afterwards. The price will be $75.00 plus something for postage. Exactly how much depends on if I buy boxes and ship first class or use flat rate priority mail boxes. I'm leaning towards the priority mail.

I will reserve 20 kits for DX orders so you guys don't have to stay up all night hoping to get an order in on time.

73, Steve KD1JV

17510. Re: [AT_Sprint] "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-17 18:10:46 UTC
From: Hank Greeb
Topic: 17509 Message: 17510

Steve:

Sounds GRRRR8!

I'll try to keep in touch with this reflector. I'll be out and about some days, so I hope I don't miss the "buying window."

72/73 de n8xx Hg
QRP >99.44% of the time

On 2/17/2017 12:58 PM, steve.kd1jv@... [AT_Sprint] wrote:

I now have most of the parts on hand and the production boards are in transit. I still need to finish adding the Straight key mode to the firmware and figure out filter values for the non-supplied bands. I added 160 and 60 meters to the band selection table.

For 60M, I used the EU allocation of 5351.5 to 5366.5 kHz, which does not quite align with the current US band plan. It seems there's no common world wide band plan yet, there are dozens depending on the country.

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73, Steve KD1JV

17511. Re: [AT_Sprint] "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-17 18:47:54 UTC
From: Camil Staps
Topic: 17509 Message: 17511
Attachments: 1 described; binary payloads are missing from this source WARC

That sounds great.
Perhaps an idea is to add the US 60m allocation to the code with
#ifdefs, so that it is easy to recompile the code with the other
allocation. But as I'm from the EU, I don't really mind, hi.

I'm looking forward to this rig if I manage to get it. If I remember
correctly a message from December mentioned early March, is that still
realistic?

73,
Camil PD7LOL
On 02/17/17 18:58, steve.kd1jv@... [AT_Sprint] wrote:
> I now have most of the parts on hand and the production boards are in transit. I still need to finish adding the Straight key mode to the firmware and figure out filter values for the non- supplied bands. I added 160 and 60 meters to the band selection table.
>
> For 60M, I used the EU allocation of 5351.5 to 5366.5 kHz, which does not quite align with the current US band plan. It seems there's no common world wide band plan yet, there are dozens depending on the country.
>
> I have the assembly manual pretty much finished and will upload it to the files section soon.
>
> I should be ready to take orders by the end of the month and start shipping shortly afterwards. The price will be $75.00 plus something for postage. Exactly how much depends on if I buy boxes and ship first class or use flat rate priority mail boxes. I'm leaning towards the priority mail.
>
> I will reserve 20 kits for DX orders so you guys don't have to stay up all night hoping to get an order in on time.
>
> 73, Steve KD1JV
>
>

17512. RE: [AT_Sprint] "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-17 21:52:52 UTC
From: Graham Smith
Topic: 17509 Message: 17512

The next version of the ADIF specification has 60m as 5060 - 5450 kHz, specified by those more knowledgeable than I am.

Ref. http://adif.org.uk/proposed/305/ADIF_305.htm#Band_Enumeration

73 de Graham G3ZOD

17513. Re: [AT_Sprint] "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-18 03:14:34 UTC
From: jer terez
Topic: 17509 Message: 17513

don't you think /6 should count as dx from 1 land? or just put me on the list...
jerry

On Fri, 2/17/17, steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

Subject: [AT_Sprint] "SODA POP" rig update
To: AT_Sprint@yahoogroups.com
Date: Friday, February 17, 2017, 9:58 AM

I now have most of the parts on hand and the
production boards are in transit. I still need to finish
adding the Straight key mode to the firmware and figure out
filter values for the non- supplied bands. I added 160 and
60 meters to the band selection table.

For 60M, I used the EU allocation of 5351.5 to
5366.5 kHz, which does not quite align with the current US
band plan. It seems there's no common world wide band
plan yet, there are dozens depending on the country.

I have the assembly manual
pretty much finished and will upload it to the files section
soon.

I should be ready to
take orders by the end of the month and start shipping
shortly afterwards. The price will be $75.00 plus
something for postage. Exactly how much depends on if I buy
boxes and ship first class or use flat rate priority mail
boxes. I'm leaning towards the priority mail.

 I will reserve 20 kits for
DX orders so you guys don't have to stay up all night
hoping to get an order in on time.

73, Steve KD1JV

17514. Re: [AT_Sprint] "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-18 07:18:45 UTC
From: infotechcomms@...
Topic: 17509 Message: 17514

That's a very kind gesture for DX buyers. My MTR is my pride and joy and gets a lot of attention. Steve G0KYA

17515. "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-20 21:43:49 UTC
From: Steven Weber
Topic: 17509 Message: 17515

I got the boards for the SODA POP Saturday and found out I sent them the wrong files! I sent the first pass version, not the updated one with the fixes! I hate when that happens.

So, I need to order another lot of boards. But maybe it was for the best, I was able to make a few more tweaks to the layout which will make it easier to connect up a battery pack or make band modules.

As a bonus, you may also get the not so perfect board with the kit to use as a coaster...

73, Steve KD1JV

17516. Re: [AT_Sprint] "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-20 23:12:54 UTC
From: ohwenzelph@...
Topic: 17509 Message: 17516

Is the coaster"lead free"?

Sent from my iPad

> On Feb 20, 2017, at 1:43 PM, 'Steven Weber' steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> □
>
> I got the boards for the SODA POP Saturday and found out I sent them the wrong files! I sent the first pass version, not the updated one with the fixes! I hate when that happens.
>
> So, I need to order another lot of boards. But maybe it was for the best, I was able to make a few more tweaks to the layout which will make it easier to connect up a battery pack or make band modules.
>
> As a bonus, you may also get the not so perfect board with the kit to use as a coaster...
>
> 73, Steve KD1JV
>

17517. Re: "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-21 00:48:08 UTC
From: sreedq1014@...
Topic: 17509 Message: 17517

I think past a certain age, you're entitled to those mistakes (: The updated circuitry will be the positive! It's all good of you. Thank you. 73, Shawnr. kf7yff

17518. Re: [AT_Sprint] Re: "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-21 17:17:55 UTC
From: Steve Saslow
Topic: 17509 Message: 17518

I think I’m hearing collective sighs of some surprise, -and then: gratitude, Steve!
Sincerely, Steve k7ew

On Feb 20, 2017, at 4:48 PM, sreedq1014@yahoo.com<mailto:sreedq1014@yahoo.com> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

I think past a certain age, you're entitled to those mistakes (: The updated circuitry will be the positive! It's all good of you. Thank you. 73, Shawnr. kf7yff

17519. Re: "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-24 08:25:47 UTC
From: hb9bqb@...
Topic: 17509 Message: 17519

Hi Steve Question: in all your SMD rigs you use wired electrolytic capacitors. Why not SMD Elkos?
73, Guido
HB9BQB

17520. RE: [AT_Sprint] Re: "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-24 16:18:01 UTC
From: <steve.kd1jv@...>
Topic: 17509 Message: 17520

Because the SMD Elkos are a pain to solder by hand and don’t work too well with the hot air pencil solder paste soldering. Plus they tend to be a lot more expensive then through hole types. Finally, the through hole caps can have a smaller foot print then the SMD type, so long as they can be laid down flat to the board.

Steve KD1JV

Hi Steve
Question: in all your SMD rigs you use wired electrolytic capacitors. Why not SMD Elkos?
73, Guido
HB9BQB

17521. Builders on the site ? Need assist to complete a 5B

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-24 18:50:16 UTC
From: brianboschma@...
Topic: 17521 Message: 17521

I hope this question is legal on this site: Are there any builders on the site that can contact me off site ? I have a 5B, the bottom side is fully populated, I did this with my reflow oven. I don't have time to finish the top, less dense side, or wind the toroids and install. Can someone recommend a builder ?

Regards,

Brian N6IZ

17522. RE: [AT_Sprint] Re: "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-24 19:10:28 UTC
From: jgaffke@...
Topic: 17509 Message: 17522

Those electrolytics may be your best bet, but they are packing lots of uF's into ceramics these days. For example, the 25v 10uf 1206 Murata GRM319R61E106KA12D from Mouser is $0.04 each if you buy a reel.
Jerry, KE7ER.

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :

Because the SMD Elkos are a pain to solder by hand and don’t work too well with the hot air pencil solder paste soldering. Plus they tend to be a lot more expensive then through hole types. Finally, the through hole caps can have a smaller foot print then the SMD type, so long as they can be laid down flat to the board.

Steve KD1JV

Hi Steve
Question: in all your SMD rigs you use wired electrolytic capacitors. Why not SMD Elkos?

73, Guido

HB9BQB

17523. RE: [AT_Sprint] Re: "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-24 23:43:27 UTC
From: n7eku@...
Topic: 17509 Message: 17523

Ah,

But they are not without their own unique problems:

https://www.maximintegrated.com/en/app-notes/index.mvp/id/5527
https://www.maximintegrated.com/en/app-notes/index.mvp/id/5527

So they are not direct replacements for traditional electrolytic capacitors.

73,

Mark.

17524. Re: [AT_Sprint] Builders on the site ? Need assist to complete a 5B

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-25 00:14:23 UTC
From: Dale Putnam
Topic: 17521 Message: 17524

IF you don't get any other answers, please get back in touch with me.

Thank you,

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of brianboschma@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Friday, February 24, 2017 11:50 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Builders on the site ? Need assist to complete a 5B

I hope this question is legal on this site: Are there any builders on the site that can contact me off site ? I have a 5B, the bottom side is fully populated, I did this with my reflow oven. I don't have time to finish the top, less dense side, or wind the toroids and install. Can someone recommend a builder ?

Regards,

Brian N6IZ

17525. RE: [AT_Sprint] Re: "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-25 02:28:37 UTC
From: James Rodenkirch
Topic: 17509 Message: 17525

Z

Sent from my Verizon Wireless 4G LTE smartphone

-------- Original message --------
From: "jgaffke@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>
Date: 02/24/2017 12:10 (GMT-07:00)
To: AT_Sprint@yahoogroups.com
Subject: RE: [AT_Sprint] Re: "SODA POP" rig update

Those electrolytics may be your best bet, but they are packing lots of uF's into ceramics these days. For example, the 25v 10uf 1206 Murata GRM319R61E106KA12D from Mouser is $0.04 each if you buy a reel.
Jerry, KE7ER.

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :

Because the SMD Elkos are a pain to solder by hand and don’t work too well with the hot air pencil solder paste soldering. Plus they tend to be a lot more expensive then through hole types. Finally, the through hole caps can have a smaller foot print then the SMD type, so long as they can be laid down flat to the board.

Steve KD1JV

Hi Steve

Question: in all your SMD rigs you use wired electrolytic capacitors. Why not SMD Elkos?

73, Guido

HB9BQB

17526. IN THE NEWS -- Chu's Limit - a limit no more

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-25 21:48:38 UTC
From: James Rodenkirch
Topic: 17526 Message: 17526

Interesting!!!

(Also, see this url for variation of below:
https://phys.org/news/2017-02-chu-limita-limit.html)

Compact and EFFICIENT XMT and RCV antennas for low bands right around the corner???

PHYS.ORG, 23 FEB 2017
Chu's Limit- a limit no more
Measured bandwidth performance comparison of non-Foster integrated antenna vs. passive (conventional) antenna of the same physical size
By Katherine Connor, staff writer at SSC Pacific

Chu's Limit, a fundamental principle of electromagnetics, dictates that the bandwidth an antenna can function in has a maximum level proportional to the physical size of the antenna-the smaller the antenna, the smaller the bandwidth, the slower and less capable the communications link. Chu's Limit has been a foundational law of antenna and telecommunications research since its introduction in the late 1940s, but a scientist at the Space and Naval Warfare Systems Center Pacific (SSC Pacific) has recently, for the first time, exceeded Chu's Limit in a measured experiment.

Justin Church, an engineer in the Center's applied electromagnetics group, used non-Foster circuits embedded in an electrically small antenna to produce the first experimentally measured instance of exceeding the Limit. Several papers have theorized or simulated such a possibility, but Church is the first to demonstrate an antenna capable of using bandwidths that exceed this fundamental limit.

He was able to achieve this thanks to two novel advances: non-Foster circuits and internal matching. Non-Foster circuits are active, transistorized circuits that effectively create capacitors and inductors that are negatively charged, meaning the reactance is inverted to that of conventional capacitors and inductors. Coupling this technique with internal matching-embedding the antenna and circuit into one structure-allowed the electrically small antenna to achieve a broader bandwidth, while not sacrificing efficiency. An electrically small antenna is one in which the largest dimension of the structure is less than one-tenth of a wavelength. Most electrically small antennas have less than 1 percent efficiency, but Church was able to achieve an efficiency of 85 percent.

Church experimentally verified an instantaneous bandwidth of 18 Megahertz from an internally matched, non-Foster integrated antenna that had a physical volume less than one-tenth the operational wavelength. This measured bandwidth exceeds the Chu limit by 2.5 times.

Aside from the scientific importance of achieving this previous impossibility, this is an important area of research for the Navy, and will have far reaching impacts on the warfighter.

"A lot of the communication bands the military is interested in using are often at low frequencies-very high frequency (VHF) and ultra-high frequency (UHF). Here, the wavelengths are quite long-over a meter or more-and at these frequencies the wave travels a long distance," Church explained. "The challenge is, in order for an antenna to operate efficiently at those frequencies, it has to be physically large, often on a scale of several meters."

This is a challenge for those tasked with executing Navy missions, where smaller, portable antennas are much more effective and covert.

"There's a big push, and always a need for the military to research how small you can make antennas and have them operate as efficiently as large ones," Church said. "Antennas that are compact allow for greater operational capabilities."

SSC Pacific is the naval research and development lab tasked with ensuring Information Warfare superiority.

Link at https://phys.org/news/2017-02-chu-limita-limit.html
Read more at: https://phys.org/news/2017-02-chu-limita-limit.html#jCp

IMPORTANT NOTE. Ms. Connor is a contract public affairs specialist/writer in SSC Pacific's Corporate Media Branch. She used an online media portal to place her story in phys.org. The site's users and demographics include media, academia and government agencies interested in hard science stories. Ms. Connor's previous post about the Center's work in the area of graphene has been viewed more than 15K times and shared more than 750 times. Thus far, her latest story has accumulated 2,390 views and 49 shares... along with a comment that read "This is really awesome news for the satellite industry as well. The more compact and efficient you can make things, the smaller and cheaper they become!"

17527. New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-26 19:57:07 UTC
From: AT_Sprint@yahoogroups.com
Topic: 1459 Message: 17527

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the AT_Sprint
group.

File : /New KD1JV RIg/SODAPOP.pdf
Uploaded by : kd1jv <steve.kd1jv@...>
Description : Preliminary manual for the SODA POP rig

You can access this file at the URL:
https://groups.yahoo.com/neo/groups/AT_Sprint/files/New%20KD1JV%20RIg/SODAPOP.pdf

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

kd1jv <steve.kd1jv@...>

17528. Re: New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-26 21:46:21 UTC
From: jgaffke@...
Topic: 1459 Message: 17528

Looks good! Have you found the FET mixers and/or Si5351 to impact performance relative the the last decade's worth of ATS/MTR rigs? Apparently lining up holes to allow for optional plug in band filters didn't quite sort out.
Jerry, KE7ER

17529. RE: [AT_Sprint] Re: New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-27 01:47:02 UTC
From: <steve.kd1jv@...>
Topic: 1459 Message: 17529
Attachments: 1 described; binary payloads are missing from this source WARC

The only real difference is the jfet mixers require a lot more parts, so it can’t be made nearly as compact as the SA612 based rigs. But all those parts don’t cost much more then a single SA612 chip. All in all, the performance seems pretty darn good. Any phase noise the Si5351 has seems to be insignificant. It has no impact on the ability to decode PSK signals.

As far as plug in filter modules, they are possible, but maybe not a real clean way to do it. At least I remembered to make the hole spacing 0.1” where sockets would have to go, something I didn’t get quite right on the first pass board.

Steve KD1JV

Looks good! Have you found the FET mixers and/or Si5351 to impact performance relative the the last decade's worth of ATS/MTR rigs? Apparently lining up holes to allow for optional plug in band filters didn't quite sort out.

Jerry, KE7ER

17530. RE: [AT_Sprint] Re: New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-27 05:08:32 UTC
From: jgaffke@...
Topic: 1459 Message: 17530

Ah, ok. I see that row of 4 holes for the rx filter now on p13, hidden by the trimmer caps in the photos. Looks fine to me. Not that big a board to hit both filters. And can probably use 0.1" vectorboard.

I'm curious why you went with a crystal oscillator for the BFO. My understanding is there can be
some crosstalk between channels on that si5351, but if you use the two on the ends and shut down
the one in the middle the crosstalk is negligible.

You happy with C now? Or will rev01 of the firmware be written in assembly language?

Jerry, KE7ER

17531. RE: [AT_Sprint] Re: New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-27 17:45:01 UTC
From: <steve.kd1jv@...>
Topic: 1459 Message: 17531

Although the Si5351 has three clock outputs, two of the channels share a VCO which complicates things a bit. Because of these complications it was just easier to use a xtal BFO oscillator. But now that I think about it some more, there may have been a way around those complications. I might have to try it and see if it works.

No, not happy with C. For a simple program it blows up to use a lot of memory. If I could figure out how to mix C and assembly I would, but doing that with the Ardiuno IDE is not easy to do. Doing the calculations for the SI5351 chip is really complicated so I’m glad someone else figured that out and rewriting it in assembly would be a real task, so that’s not going to happen.

Steve KD1JV

Ah, ok. I see that row of 4 holes for the rx filter now on p13, hidden by the trimmer caps in the photos.
Looks fine to me. Not that big a board to hit both filters. And can probably use 0.1" vectorboard.

I'm curious why you went with a crystal oscillator for the BFO. My understanding is there can be
some crosstalk between channels on that si5351, but if you use the two on the ends and shut down
the one in the middle the crosstalk is negligible.

You happy with C now? Or will rev01 of the firmware be written in assembly language?

Jerry, KE7ER

17532. Re: [AT_Sprint] Re: New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-02-28 00:12:18 UTC
From: Shirley Márquez Dúlcey
Topic: 1459 Message: 17532

C uses a lot of memory for simple programs because various libraries and setup code come along for the ride, and it's not as tailored to a specific system as your hand-written assembler code. Anything that's Arduino-compatible is going to have that overhead. But once that fixed chunk is out of the way, additional features don't take a lot more memory than assembler code would, so it's not as bad as all that.

On Mon, Feb 27, 2017 at 12:45 PM, steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Although the Si5351 has three clock outputs, two of the channels share a
> VCO which complicates things a bit. Because of these complications it was
> just easier to use a xtal BFO oscillator. But now that I think about it
> some more, there may have been a way around those complications. I might
> have to try it and see if it works.
>
>
>
> No, not happy with C. For a simple program it blows up to use a lot of
> memory. If I could figure out how to mix C and assembly I would, but doing
> that with the Ardiuno IDE is not easy to do. Doing the calculations for the
> SI5351 chip is really complicated so I’m glad someone else figured that out
> and rewriting it in assembly would be a real task, so that’s not going to
> happen.
>
>
>
> Steve KD1JV
>
> Ah, ok. I see that row of 4 holes for the rx filter now on p13, hidden by
> the trimmer caps in the photos.
>
> Looks fine to me. Not that big a board to hit both filters. And can
> probably use 0.1" vectorboard.
>
>
>
> I'm curious why you went with a crystal oscillator for the BFO. My
> understanding is there can be
>
> some crosstalk between channels on that si5351, but if you use the two on
> the ends and shut down
>

> the one in the middle the crosstalk is negligible.
>
>
>
> You happy with C now? Or will rev01 of the firmware be written in
> assembly language?
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> Jerry, KE7ER
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17533. Re: "SODA POP" rig update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-03 21:44:14 UTC
From: steve.kd1jv@...
Topic: 17509 Message: 17533
Attachments: 2 described; binary payloads are missing from this source WARC

Making progress. The new boards finally shipped today, so will get them some time next week. Hopefully these will be error free and we can proceed. I've started to bag parts and have the through hole and chip caps finished.

Once I verify the board is good and get the parts all bagged up, I'll set up some paypal buttons and start taking orders. I promised to premount the Si5351 chip and that will take some time to do 100 boards.

I found a nice case for the rig at Walmart. It's a fancy pencil case, called a "Locking Supply Box" by VAULTZ. 5.5" x 8.5" x 2.5" It has enough room for the board, three 85350 li-ion cells and an HWEF antenna tuner. There would be room in the lid for the antenna wire and a log book. It's not the most light weight solution, but it makes for an all in one package.

It looks like holes could be drilled in the back for the BNC and 3.5mm jacks to stick out of, but I would be better not to board mount these parts and mount them to a panel inside the case so nothing is exposed. It would be a toss up as to whether to drill a hole in the back for the power jack or replace it with a panel mount jack.

17534. Re: [AT_Sprint] Re: New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-03 23:21:43 UTC
From: jgaffke@...
Topic: 1459 Message: 17534

C does not have to be a pig for small programs. In the files section under KE7ER/keyer/keyermem03.zip is an example where I shoehorned a full featured iambic memory keyer into the 2kbytes of flash of the MSP430G2231 that comes with the TI Launchpad, lots and lots of comments in the *.c files. To save some flash, I used the -nostartup compiler directive to disable the use of crt0.s, which is the C run-time code that normally executes before your code does to initialize RAM and set up the stack pointer and such. Once I did that, there was no extra stuff in the disassembled machine code from the compiler, just stuff I had written. And code from the gcc compiler for the MSP430 is about as tight as I could code up by hand in assembly, though when I write in C I keep in mind what hardware resources are available on the chip. For example, judicious selection of 8, 16, or 32 bit integers, no floating point, avoid multiplies and divides on the MSP430, no use of the standard library routines such as sprintf(), avoid using RAM where possible, etc. The ATMEGA328 is an 8 bit machine, so compiled C for that won't be as tight as the 16 bit MSP430. The Arduino platform makes coding very convenient by hiding the complexity of talking to the peripherals, but not all of that code is particularly efficient and may not be appropriate for your usage case. You can write C for the ATMEGA328 without using the Arduino environment if that becomes an issue.

Jerry, KE7ER

---In AT_Sprint@yahoogroups.com, <mark@...> wrote :
C uses a lot of memory for simple programs because various libraries and setup code come along for the ride, and it's not as tailored to a specific system as your hand-written assembler code. Anything that's Arduino-compatible is going to have that overhead. But once that fixed chunk is out of the way, additional features don't take a lot more memory than assembler code would, so it's not as bad as all that.

17535. SODA POP board in "lock box"

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-05 21:58:46 UTC
From: steve.kd1jv@...
Topic: 17535 Message: 17535
Attachments: 1 described; binary payloads are missing from this source WARC

I was able to mount the SODA board along with three 85350 cell battery holders and a BLT tuner into the 8.5" x 5.5" x 2.5" VAULTZ "lock box" from Walmart. I'm not sure where the charger board for the li-ion cells will go as it's an odd shape, but will figure that out when we're farther along. Since I don't have the production boards yet, I had to use the original board for a mock up and the mounting holes and controls aren't quite in the same place as the final board.

For the top panel I used plexiglass from a small clip board (also from Walmart) and trimmed it to fit. A couple of wood strips are screwed to the side of the case to secure the top panel in place. The plastic is reasonably easy to work with and eliminates the need to cut a window to see the display.

All in all, I think this works out pretty good and is a nice all in one package.

73, Steve KD1JV

17536. Re: SODA POP board in "lock box"

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-05 22:53:05 UTC
From: <ut0um@...>
Topic: 17535 Message: 17536

And you received old yellow PFR, but for one band only :)

17537. Fwd: [QRP-L] FSKD1JV tribander

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-09 02:05:22 UTC
From: Hank Greeb
Topic: 17537 Message: 17537

forwarded from QRP-L

-------- Forwarded Message --------

Subject:

[QRP-L] FSKD1JV tribander

Date:

Wed, 8 Mar 2017 20:56:29 -0500

From:

John's email

Reply-To:

QRP-L Mailing List

To:

h.r@...

Up for sale, my KD1JV tribander just completed last week. Works great. 5 watts out on 40/30/20.
Time to build something else. $225 as a kit will sell for $210 shipped CONUS.
Contact Ke4d@....

John

17538. Spot on!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-09 13:17:46 UTC
From: James Rodenkirch
Topic: 17538 Message: 17538

http://mailman.qth.net/pipermail/elecraft/2017-March/242669.html

17539. Re: [AT_Sprint] Spot on!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-09 15:53:25 UTC
From: Hank Greeb
Topic: 17538 Message: 17539

Yeah, and you do NOT want to try using one of the earlier AT-Sprints (don't know about the later versions) in a multi-multi operating site, unless the AT-Sprint is VERY far from the other rigs. My AT-Sprint original version is a wideband noise generator locally when operating on 40 on all bads from 80 thru 15 at least, and maybe more. I learned the hard way.

But, these rigs are excellent for single use. the RFI is probably 50+ dB lower than the power out, but still enough to bother receivers within a hundred feet or so.

Note: I haven't even tried the later versions which I have, because they appear to have the same method of construction.

BUT, I REALLY love my original AT-Sprint. It's my favorite trail rig.

72/73 de n8xx Hg
QRP >99.44% of the time

On 3/9/2017 8:17 AM, James Rodenkirch rodenkirch_llc@... [AT_Sprint] wrote:
> http://mailman.qth.net/pipermail/elecraft/2017-March/242669.html

17540. Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-09 21:56:07 UTC
From: dl2arl@...
Topic: 17540 Message: 17540

Gentlemen,
while waiting for the SodaPop TRx, I tried to figure out, not just for the peace of my mind but for the purpose of flashing the rigs, which MTR firmware is actual and for which MTR Version-witch. I am a little confused, because there seems to be enuf information in the "Files" section, but looking closer, I find a File named MTR_5.S43 meant to be flashed into a MTR2Bander and a MTR V2 supposed for the 3Bander.

I must admit that I lost the orientation. And to make things more unhappy, I only managed to find ".bin" files for the MTR5Bander, all other are "s43" files yet to be compiled. Would be no big fuss to compile them, had I a compiler, but the IAR Workbench I managed to download from TexInst asks for so many codes and registrations that I had to quit to save my sanity.

Plain question: can the group historian please tell me the actual versions for MTR5, MTR3, MTR2, ATS4, ATS3B, ATS3A?

Can somebody help me find the corresponding ".bin" files or tell me where to find a compiler to compile the ".s43" files for myself (maybe even under Linux)?

And now the big bang: does somebody happen to have the firmware for the MBDC or know where to get it from (kd1jv-version, not the comercial one)? I still have the first version, which had a bug.

The flashing itself should be no problem, if everything works. I do not mind anybody naming me a digital analphabete because I lost .... weeks trying to flash the MTR5B. No kidding: if I would have known from the beginning that that darnUSB cable I got with my Launcher from TI was defective, it would have been a breeze.

But making the first attempt under Linux made me think, I have a software problem with dll's not working under Linux and so on. So I asked my kids to let me use their game-machines. Those were running under W10 with fancy 64bit, so I wrongly thought, it's because of this that the MSPFet does not want to. Finding a W7 computer took some more days, but it was again a 64bit machine and a no-go too.

Only after archeological diggings, only after having vainly found an old WinXP computer on which the MSPFet did not run either, wisdom came to my mind to try another darnUSB cable, and the lights went on. Meanwhile I am an expert in flashing with MSPFet, no analphabete anymore. But lost hairs...

My MTR5Bd has 80m. I was hoping to flash the MTR5Bd and get a "8" announced (---..) when switching to 80m. I still get a "9"-announced, which made me first think, the flashing went into the pants. But the calibration procedure works, so I might have gotten it right. What do you mean? Is there a way to display which firmware is running? I flashed MTR5B_1.3.2.bin from the files section.

Thanks: glad for any hint. Maybe even direct to mycall at qsl dot net. I can imagine, the information is well hidden somewhere on this group in some older postings, but the search

function of this ya'whoo group is far above and way beyond my challenged understanding. If I would have the number of the posting, it would be easy... but this is why I am asking for the group historian to help.

73, 88, de dl2arl, Razvan

17541. Re: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-09 22:39:49 UTC
From: Steven Weber
Topic: 17540 Message: 17541

Thanks: glad for any hint. Maybe even direct to mycall at qsl dot net. I can imagine, the information is well hidden somewhere on this group in some older postings, but the search function of this ya'whoo group is far above and way beyond my challenged understanding. If I would have the number of the posting, it would be easy... but this is why I am asking for the group historian to help.

Well, your basically asking me to straighten this all out. I suppose it should be done, but it would be a project. Even I have lost track of what goes to what in some cases.

The Launchpad and MspFet program will only work with the MTR series of kits. All the ATS series kits use an older processor which requires a parallel port PC programmer (and who still has one of these?) and the old version of the IAR to work. These are now legacy products and difficult to continue to support, which thankfully there has been no need to do so.

I suppose I should look that the archived MTR firmware and make it more obvious what goes with what. But basically there are only 3 kit versions, the 2 bander, the 3 bander and the 5 bander. The new LNR 4 and 5 bander with 2x16 lcd is a new version.

As for the original version of the MBDC kit, that firmware got modified for the QRPKITS version and I either forgot to save a copy of the original or it got deleted somehow, which is why I have never fixed it up for you, it would take me awhile to recreate it.

73, Steve KD1JV

17542. Re: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-09 23:00:08 UTC
From: Bruce Beford
Topic: 17540 Message: 17542
Attachments: 2 described; binary payloads are missing from this source WARC

[Attachment content not displayed]

17543. RE: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-10 00:30:01 UTC
From: <steve.kd1jv@...>
Topic: 17540 Message: 17543

No, since one does not exist.

So my unbuilt MDBC kit which was never updated... anyone have the updated firmware file for that?

Thanks,
Bruce Beford

17544. Re: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-10 20:00:48 UTC
From: Csahok Zoltan
Topic: 17540 Message: 17544

On Thu, Mar 09, 2017 at 09:56:07PM +0000, dl2arl@... [AT_Sprint] wrote:
> Can somebody help me find the corresponding ".bin" files or tell me where to find a compiler to compile the ".s43" files for myself (maybe even under Linux)?

To compile S43 files you can download the IAR Workbench from here:
https://dl.dropboxusercontent.com/u/89272448/FET_R451.exe

It runs fine on Linux using wine.

73,
Zoli
ha5cqz

17545. Re: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-10 20:31:39 UTC
From: dl2arl@...
Topic: 17540 Message: 17545

got it fella! Thanks a lot! Our messages just crossed.

"It runs fine on Linux using wine." Will try with wine. I love that booze.

Köszönöm szépen kedves Zoli! Minden jot es 73! Razvan

17547. Re: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-10 20:42:59 UTC
From: dl2arl@...
Topic: 17540 Message: 17547

Steve says: "Well, your basically asking me to straighten this all out."

I really, really did NOT mean it that way. Your time dear Steve is too valuable to tidy up the group. I am sure that there are friends and fellas on this group already having done that for their own purpose. And I thought, they could share this info with us.

Imagine a corner in the files section of this group called: "Museum". And in this Museum a directory for each ATSxx, MTRxx and whatever else has been or will be, containing essential information to that particular rig: two photos, one from it's face, the other from it's innards, maybe the last version of the corresponding manual and the last official firmware. For rigs having also less-official firmware, written and published by other fellas in the group, put it there too, but do not forget to mention what the difference to the mainstream is. You would not want to flash your rig just to find out that it sorts the frequencies bearing the band allocations of another IARU Zone.

Just thinking loud...

Yours friendly, 73 ! Razvan dl2arl

17548. SODA POP update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-10 21:56:39 UTC
From: Steven Weber
Topic: 17548 Message: 17548

Getting real close to having this all done.

I received the REV A boards earlier in the week and they are error free. Whew. I've been tweaking the firmware and the manual and believe these are also now error free, but I wouldn't be suprised if one of you eagle eyed proof readers do find something which doesn't match up.

I'll have to check all the processor functions one more time before starting to blast chips and then get the semiconductors bagged, then I'll be pretty much ready to start taking orders. Hopefully, by early next week.

There have been a number of changes and additions to the manual, so when I upload the final version, be sure to delete the preliminary one and down load the new one. That will probably happen tomorrow.

73, Steve KD1JV

17549. SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 02:44:16 UTC
From: steve.kd1jv@...
Topic: 17549 Message: 17549

Hi Gang,

All the parts are bagged and clock chip mounted, so I'm now ready to take orders for the new SODA POP rig. So, here's the deal: There are 95 kits available.

Just in case the demand exceeds the supply (like that never happens, hi) please email me DIRECT - don't reply to this message which will go to the group! <steve.kd1jv@gmail.com> and tell me how you'd like to pay. I will then confirm if your good to go. This way I can keep track of the number of orders. Give me 24 hours to get back to you before getting nervous.

I'd prefer getting a check or MO for domestic orders and to encourage that, those who send a check or MO will get free shipping, so your price will be $75.00 Please include your name and mailing address in the email so I can cut and paste it for a mailing label.

If you'd like to do paypal, I will send you a link to a button, but your cost will include $5.00 shipping for a total of $80.00

I will reserve 20 kits for DX orders and your shipping costs will be $15 for a total of $90.00 I will also set up a paypal button for that.

I hope you all enjoy this new kit,

17550. Re: [AT_Sprint] SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 03:05:57 UTC
From: gasrenateu@...
Topic: 17549 Message: 17550

Hi Steve,

Mailing address for sending you SODA POP checks?

580 Durand Road
Randolph, NH
03593

73,wi1p,Greg

In a message dated 3/13/2017 10:44:21 P.M. Eastern Daylight Time,
AT_Sprint@yahoogroups.com writes:

steve.kd1jv@...

17551. New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 03:07:59 UTC
From: AT_Sprint@yahoogroups.com
Topic: 1459 Message: 17551

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the AT_Sprint
group.

File : /New KD1JV RIg/SODAPOP_ final.pdf
Uploaded by : kd1jv <steve.kd1jv@...>
Description : SODA POP production manual

You can access this file at the URL:
https://groups.yahoo.com/neo/groups/AT_Sprint/files/New%20KD1JV%20RIg/SODAPOP_%20final.pdf

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

kd1jv <steve.kd1jv@...>

17552. Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 03:14:59 UTC
From: Paul Mateer
Topic: 17549 Message: 17552

I just saw a pix of the pcb. Hope you fixed the spelling error....
"Signel" is a canal in Amsterdam...I assume you meant "Single"

--
Paul Mateer, AA9GG
Elan Engineering Corp.
www.elanengr.com
NAQCC 3123, SKCC 4628, FPQRP 2003

17553. Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 03:29:26 UTC
From: n1rx@...
Topic: 17549 Message: 17553

Board silkscreen says "Singel". Yes, should be Single. Will not affect performance...

17554. Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 03:37:49 UTC
From: Paul Mateer
Topic: 17549 Message: 17554

No is doesn't affect performance, but I'm sure Steve had one of those
"D'ogh" moments when he saw it ;) Maybe it will become a collectors
version when the next rev. comes 'round

--
Paul Mateer, AA9GG
Elan Engineering Corp.
www.elanengr.com
NAQCC 3123, SKCC 4628, FPQRP 2003

17555. RE: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 04:16:44 UTC
From: W2CTX
Topic: 17549 Message: 17555

I thought the latest doc uploaded had
it corrected !!!!

Ron

Sent from Yahoo Mail for iPhone (https://overview.mail.yahoo.com?.src=iOS)

From: n1rx@... [AT_Sprint] ;
To: ;
Subject: [AT_Sprint] Re: SODA POP - now taking orders!
Sent: Tue, Mar 14, 2017 3:29:26 AM

Board silkscreen says "Singel". Yes, should be Single. Will not affect performance...

17556. RE: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 04:52:02 UTC
From: mst72481@...
Topic: 17549 Message: 17556

In the manual Steve uploaded a couple hours ago the board has "SINGLE" spelled correctly...

17557. Steve's email address

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 13:49:34 UTC
From: kn2i.radio@...
Topic: 17557 Message: 17557

I only read group messages using the Yahoo web interface. In Steve's message announcing the opening of kit orders, his email address was missing everything after the "@". Could someone please post his address in a way that will be usable. Thank you.

Dennis KN2I

17558. Re: Steve's email address

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 14:48:03 UTC
From: n1rx@...
Topic: 17557 Message: 17558

steve dot kd1jv at gmail dot com

17559. RE: [AT_Sprint] Steve's email address

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 14:46:25 UTC
From: Bruce Beford
Topic: 17557 Message: 17559

Steve dot kd1jv at gmail dot com

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Tuesday, March 14, 2017 9:50 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Steve's email address

I only read group messages using the Yahoo web interface. In Steve's message announcing the opening of kit orders, his email address was missing everything after the "@". Could someone please post his address in a way that will be usable. Thank you.

Dennis KN2I

17560. Re: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 14:52:25 UTC
From: Steven Weber
Topic: 17549 Message: 17560

Board silkscreen says "Singel". Yes, should be Single. Will not affect performance...

Damn Dylexia. Plus that is actually the bottom layer in the PCB CAD, so the text is backwards and in a hard to see color when I add text to that layer. Minor detail, but kind of funny.

Steve KD1JV

17561. SODA POP - now SOLD OUT!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 15:26:17 UTC
From: Steven Weber
Topic: 17561 Message: 17561

Thanks for all the orders and it now looks like I'm sold out!

I'll start working on getting back to everyone with the confermations and will start shipping once I dig out from this little Nor'easter in a couple of days....

73, Steve KD1JV

17562. Re: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 15:28:44 UTC
From: Hank Greeb
Topic: 17549 Message: 17562

I gather that if I don't see a "out of stock" message from Steve, I can assume that I'm on the list to receive a kit? I plan to send a check in the afternoon mail unless I hear otherwise.

Steve, I see I mispelled a word or two in my order. Just early morning typos. I do want a "SODA POP" kit.

72/73 de n8x Hg
QRP >99.44% of the time

On 3/14/2017 10:52 AM, 'Steven Weber' steve.kd1jv@... [AT_Sprint] wrote:

☐

Board silkscreen says "Singel". Yes, should be Single. Will not affect performance...

17563. Re: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 15:35:14 UTC
From: Bruce Beford
Topic: 17549 Message: 17563
Attachments: 2 described; binary payloads are missing from this source WARC

[Attachment content not displayed]

17564. Re: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 14:58:34 UTC
From: Anthony DeStefano
Topic: 17549 Message: 17564

> On Mar 14, 2017, at 10:52 AM, 'Steven Weber' steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> □
>
>
> Board silkscreen says "Singel". Yes, should be Single. Will not affect performance...
> Damn Dylexia. Plus that is actually the bottom layer in the PCB CAD, so the text is backwards and in a hard to see color when I add text to that layer. Minor detail, but kind of funny.
>
> Steve KD1JV

Must be the fancy French version of the boards.

-Anthony WR3T
>
>

17565. Re: [AT_Sprint] SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 14:36:07 UTC
From: David Gordon
Topic: 17549 Message: 17565

Steve,

I would like to purchase a soda pop rig. It will be shipped to GA. I will pay with a check.

73,

David. AA9PZ

On Mar 13, 2017 10:44 PM, "steve.kd1jv@... [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:

>
>
> Hi Gang,
>
> All the parts are bagged and clock chip mounted, so I'm now ready to take
> orders for the new SODA POP rig. So, here's the deal: There are 95 kits
> available.
>
> Just in case the demand exceeds the supply (like that never happens, hi)
> please email me DIRECT - don't reply to this message which will go to the
> group! <steve.kd1jv@...> and tell me how you'd like to pay. I will
> then confirm if your good to go. This way I can keep track of the number of
> orders. Give me 24 hours to get back to you before getting nervous.
>
> I'd prefer getting a check or MO for domestic orders and to encourage
> that, those who send a check or MO will get free shipping, so your price
> will be $75.00 Please include your name and mailing address in the email so
> I can cut and paste it for a mailing label.
>
> If you'd like to do paypal, I will send you a link to a button, but your
> cost will include $5.00 shipping for a total of $80.00
>
> I will reserve 20 kits for DX orders and your shipping costs will be $15
> for a total of $90.00 I will also set up a paypal button for that.
>
> I hope you all enjoy this new kit,
>
>
>
>

17567. Re: [AT_Sprint] SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 16:38:13 UTC
From: Hank Greeb
Topic: 17549 Message: 17567

OIC:

Mailing address:

HANK GREEB N8XX
5727 11 MILE RD NE
ROCKFORD, MI 49341-9502

Sorry I didn't read your original message well enough.

72/73 de n8xx Hg
QRP >99.44% of the time

On 3/13/2017 10:44 PM, steve.kd1jv@... [AT_Sprint] wrote:

Hi Gang,

All the parts are bagged and clock chip mounted, so I'm now ready to take orders for the new SODA POP rig. So, here's the deal: There are 95 kits available.

Just in case the demand exceeds the supply (like that never happens, hi) please email me DIRECT - don't reply to this message which will go to the group! and tell me how you'd like to pay. I will then confirm if your good to go. This way I can keep track of the number of orders. Give me 24 hours to get back to you before getting nervous.

I'd prefer getting a check or MO for domestic orders and to encourage that, those who send a check or MO will get free shipping, so your price will be $75.00 Please include your name and mailing address in the email so I can cut and paste it for a mailing label.

If you'd like to do paypal, I will send you a link to a button, but your cost will include $5.00 shipping for a total of $80.00

I will reserve 20 kits for DX orders and your shipping costs will be $15 for a total of $90.00 I will also set up a paypal button for that.

I hope you all enjoy this new kit,

17568. New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 18:32:01 UTC
From: AT_Sprint@yahoogroups.com
Topic: 1459 Message: 17568

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the AT_Sprint
group.

File : /New KD1JV RIg/SODA_POP_ARDUINO_SKETCH.zip
Uploaded by : kd1jv <steve.kd1jv@...>
Description : Arduino sketch for SODA POP rig

You can access this file at the URL:
https://groups.yahoo.com/neo/groups/AT_Sprint/files/New%20KD1JV%20RIg/SODA_POP_ARDUINO_SKETCH.zip

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

kd1jv <steve.kd1jv@...>

17569. SODA POP files

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 18:35:37 UTC
From: steve.kd1jv@...
Topic: 17569 Message: 17569

I renamed the folder with the SODA POP files to "SODA POP" so it's more obvious where these are located. The Arduino Sketch is now also included in that folder.

73, Steve KD1JV

17570. RE: [AT_Sprint] SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 19:58:05 UTC
From: Mike Olbrisch
Topic: 17549 Message: 17570

Well, I was considering jumping on one of these for my grandson. My grandson is almost 9 now. He is studying (his mom says he is getting 70s on the practice test), but hasn't passed his Technician license yet. So buying one would be a waste of time for now, and it would only sit on the shelf unbuilt until the grandson got his license and was ready to build it. So I'll pass and let someone else get one. I'll wait to see what Steve comes up with next.

I was thinking I would start him out on 30m, a good all-around CW band. But techs are not allowed there as someone pointed out to me. So if the first radio isn't multi-band, it will be 40m.

OTOH, the grandson did get accepted into a special STEM academy starting next fall. No sports, but electronics, robotics, solar energy, huge science fair entries..... what a fine place for a 3rd grader to go to school. He'll get an HF radio kit when the time is right.

I hope everyone who wants one is lucky this time around. Good luck.

Vy73 -- Mike -- KD5KC.

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Monday, March 13, 2017 20:44
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] SODA POP - now taking orders!

Hi Gang,

All the parts are bagged and clock chip mounted, so I'm now ready to take orders for the new SODA POP rig. So, here's the deal: There are 95 kits available.

Just in case the demand exceeds the supply (like that never happens, hi) please email me DIRECT - don't reply to this message which will go to the group! <steve.kd1jv@...> and tell me how you'd like to pay. I will then confirm if your good to go. This way I can keep track of the number of orders. Give me 24 hours to get back to you before getting nervous.

I'd prefer getting a check or MO for domestic orders and to encourage that, those who send a check or MO will get free shipping, so your price will be $75.00 Please include your name and mailing address in the email so I can cut and paste it for a mailing label.

If you'd like to do paypal, I will send you a link to a button, but your cost will include $5.00 shipping for a total of $80.00

I will reserve 20 kits for DX orders and your shipping costs will be $15 for a total of $90.00 I will also set up a paypal button for that.

I hope you all enjoy this new kit,

17571. Re: [AT_Sprint] SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 20:30:49 UTC
From: Shawn Reed
Topic: 17549 Message: 17571

When you say --hope you all..do you mean the few? Sad to say, you re not worth my wait anymore. Sreed. kf7yff.

On Mon, 3/13/17, steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

Subject: [AT_Sprint] SODA POP - now taking orders!
To: AT_Sprint@yahoogroups.com
Date: Monday, March 13, 2017, 7:44 PM

Hi Gang,

All the
parts are bagged and clock chip mounted, so I'm now
ready to take orders for the new SODA POP rig. So,
here's the deal: There are 95 kits available.

Just in case the demand
exceeds the supply (like that never happens, hi) please
email me DIRECT - don't reply to this message which will
go to the group! <steve.kd1jv@gmail.com> and tell me
how you'd like to pay. I will then confirm if your good
to go. This way I can keep track of the number of orders.
Give me 24 hours to get back to you before getting nervous.

I'd prefer getting a
check or MO for domestic orders and to encourage that, those
who send a check or MO will get free shipping, so your price
will be $75.00 Please include your name and mailing address
in the email so I can cut and paste it for a mailing label.

If you'd like to do
paypal, I will send you a link to a button, but your cost
will include $5.00 shipping for a total of $80.00

I will reserve 20 kits for DX
orders and your shipping costs will be $15 for a total of
$90.00 I will also set up a paypal button for that.

I hope you all enjoy this new
kit,

17572. Re: [AT_Sprint] SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 21:27:47 UTC
From: Hank Greeb
Topic: 17549 Message: 17572

40 meters is a good all around band on which to start out. 80 did ok for me, but I'm sure propagation was on an upswing when I got into hamming in late 1951.

GL in getting your grandkid interested in CW. Tell him it's another language, and he might buy it.

72/73 de n8xx Hg
QRP >99.44% of the time

On 3/14/2017 3:58 PM, 'Mike Olbrisch' mike-2007@... [AT_Sprint] wrote:

I was thinking I would start him out on 30m, a good all-around CW band. But techs are not allowed there as someone pointed out to me. So if the first radio isn't multi-band, it will be 40m.

17573. Re: [AT_Sprint] SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 21:37:57 UTC
From: Hank Greeb
Topic: 17549 Message: 17573

Ya gotta be quick, Shawn, to get into the first round of a kit offering by KD1JV. Fortunately, I squoke through with my order, even though I didn't check e-mail after about 10 p.m. last evening. It was about 1300Z this morning when I saw Steve's announcement, and thought I had missed, but, fortunately, timing was right!

I'm not sure which band I'll try for it - maybe 80, since my AT-Sprint original version, which I dearly love, doesn't cover 80. I LOVE the smaller rigs, even though I did plug down almost a grand last year for an Elecraft KX2. So far, after about 9 months, I still haven't connected a microphone to it, so the KX2 is a $1K CW rig which does only a bit more than the AT-Sprint. :)

Patience, maybe Steve will put out a second batch, he sometimes does that, or sells the idea to one of the vendors and they become generally available, but for a higher price.

72/73 de n8xx Hg
QRP >99.44% of the time

On 3/14/2017 4:30 PM, Shawn Reed sreedq1014@... [AT_Sprint] wrote:

> When you say --hope you all..do you mean the few? Sad to say, you re not worth my wait anymore. Sreed. kf7yff.

17574. Re: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-14 22:10:51 UTC
From: dl2arl@...
Topic: 17540 Message: 17574

Maybe it is not a good timing to post such a request in this moment, when everybody sits with his wallet in his hand hoping for a SodaPop, but I will give it a try.

I was looking for a way to compile a s43 firmware file to a binary .bin file to flash into my old MTR2Bd. Zoli ha5cqz friendly told me in a former posting:

To compile S43 files you can download the IAR Workbench from here:
...
It runs fine on Linux using wine.

Good info, it runs, it should work well for ATS, but with my MTR I still have an unsolved problem. This IAR Workwrench does not contain the header files (*.h) needed to compile code for the MSP430F2132IPW, the professor that is ticking inside my MTR2Bander. The list of supported processors goes only up to the F2131.

Now, could somebody help me with this issue? New and newer IAR workwrenches require a dumb registration and I am not willing to disclose them the maiden name of my greatgrandmother they are asking for. And furthermore, the registration is only a limited demo. Is there a way to link the headerfiles from the newer versions into the older IARs that run w/o registration? Are the headerfiles available somewhere?

Or, to put it plain: I do not want/am not able and witty enuf to begin developing big code for the MSP430 and earn serious money with it so that I can afford a compiler. Would be just glad to compile the given file, get a .bin file and flash it into the MTR2Bd with the known FET flashing tool and be happy everafter. I would not even do it, because the old firmware is fine enuf for most of you out there, but my MTR2 happens on 80m and there was a bug with a lost flag there in the first version, pushing my rig on the wrong sideband...

Is there somebody willing and able to send me a compiled binary file of the latest version of the firmware for the MTR2Bander? Please... In the files section there is a s43 file named MTR_5.s43: I think, this is the latest.

Thank you in advance
Razvan
dl2arl at qsl dot net

17575. RE: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-15 01:22:27 UTC
From: <steve.kd1jv@...>
Topic: 17540 Message: 17575
Attachments: 1 described; binary payloads are missing from this source WARC

I’m not sure you can do that directly. I think there are some other formats one can compile to like Intel HEX, but those don’t do you any good.

What I have done is first download the program via IAR into the chip, then read it back with the MspFet program which reads the raw data and saves it as a bin file.

I’ll see if I can do that for you sometime in the near future once the dust settles on shipping out the soda pop kits.

Steve KD1JV

Maybe it is not a good timing to post such a request in this moment, when everybody sits with his wallet in his hand hoping for a SodaPop, but I will give it a try.

I was looking for a way to compile a s43 firmware file to a binary .bin file to flash into my old MTR2Bd. Zoli ha5cqz friendly told me in a former posting:

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...
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Is there somebody willing and able to send me a compiled binary file of the latest version of the firmware for the MTR2Bander? Please... In the files section there is a s43 file named MTR_5.s43: I think, this is the latest.

Thank you in advance
Razvan

dl2arl at qsl dot net

17576. Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-15 14:13:14 UTC
From: srmaietta@...
Topic: 17549 Message: 17576

@ KF7YFF Shawn, when you spend many hours designing something wildly popular, and then when you spend many more hours ordering parts and then when you spend many more hours kitting everything up, and then finally, after you spend many more hours creating documentation for your new baby.. When you do all of this, then you can determine how many to actually sell. Now, if you don't do any of this, then it becomes a lot easier. All you have to do is keep your email open and check, check check for that release note from Steve.

Sorry you missed out. But really, you had the easier end of the deal. No whining.

~Steve W2STV

17577. Re: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-15 14:20:39 UTC
From: Robert Citronberg
Topic: 17549 Message: 17577

Hi I hate to bother ANYONE with what I know must be a stoopid question but I must . I emailed Steve about 1030 yesterday am (to order for paypal) since I never heard anything did I make it or not ? Please don't flame me :) ... Bob ki4ght. Thanks

Sent from my iPhone

> On Mar 15, 2017, at 10:13 AM, srmaietta@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> @ KF7YFF
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> Shawn, when you spend many hours designing something wildly popular, and then when you spend many more hours ordering parts and then when you spend many more hours kitting everything up, and then finally, after you spend many more hours creating documentation for your new baby.. When you do all of this, then you can determine how many to actually sell. Now, if you don't do any of this, then it becomes a lot easier. All you have to do is keep your email open and check, check check for that release note from Steve.
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> ~Steve W2STV
>

17578. RE: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-15 14:27:48 UTC
From: Hinds, Don
Topic: 17549 Message: 17578

Bob,

I have no flames for you, but I do have some bad news…

Just dropped my check in the mail to Steve.

72,
Don
WD4ON

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Wednesday, March 15, 2017 10:21
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: SODA POP - now taking orders!

Hi I hate to bother ANYONE with what I know must be a stoopid question but I must . I emailed Steve about 1030 yesterday am (to order for paypal) since I never heard anything did I make it or not ? Please don't flame me :) ... Bob ki4ght. Thanks

Sent from my iPhone

On Mar 15, 2017, at 10:13 AM, srmaietta@yahoo.com<mailto:srmaietta@yahoo.com> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

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Sorry you missed out. But really, you had the easier end of the deal. No whining.

~Steve W2STV

17579. RE: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-15 14:39:13 UTC
From: Mike Olbrisch
Topic: 17549 Message: 17579

I didn't pay real close attention because I have an ATS-3B and an ATS-4B, and I would only have tried to get a radio if my Grandson was ready.... and he is not there yet.... But I seem to remember it like Steve was trying to avoid Pay-Pal, offering a better deal to a check or money order in the mail. Not sure if that would affect the position on the list.

Vy73 - Mike - KD5KC.
El Paso, Texas - DM61rt.
W5-SOTA Association Manager.
NA-SOTA info: http://na-sota.org/

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Wednesday, March 15, 2017 08:28
To: AT_Sprint@yahoogroups.com
Subject: RE: [AT_Sprint] Re: SODA POP - now taking orders!

Bob,

I have no flames for you, but I do have some bad news…

Just dropped my check in the mail to Steve.

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Don
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From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Wednesday, March 15, 2017 10:21
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: SODA POP - now taking orders!

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Sent from my iPhone

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Shawn, when you spend many hours designing something wildly popular, and then when you spend many more hours ordering parts and then when you spend many more hours kitting everything up, and then finally, after you spend many more hours creating documentation for your new baby.. When you do all of this, then you can determine how many to actually sell. Now, if you don't do any of this, then it becomes a lot easier. All you have to do is keep your email open and check, check check for that release note from Steve.

Sorry you missed out. But really, you had the easier end of the deal. No whining.

~Steve W2STV

17580. Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-15 14:47:58 UTC
From: mst72481@...
Topic: 17549 Message: 17580

KD5YC - I don't think it affected the list, my understanding is Steve took orders on a first-come, first-served basis. The check and MO people just got free shipping as an incentive to stay away from PayPal, but Steve made a PayPal button available to anyone who made the cut if they preferred that method.

17581. Re: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-15 14:53:52 UTC
From: Robert Citronberg
Topic: 17549 Message: 17581

Thanks Mike i didnt know trying to do paypal mattered (didn't think it would oh well) . I simply enjoy the build as I am home much more now since wife had a brain aneurysm in may and I have to be home much more now ! Thanks bob ki4ght
:)

Sent from my iPhone

> On Mar 15, 2017, at 10:39 AM, 'Mike Olbrisch' mike-2007@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> I didn't pay real close attention because I have an ATS-3B and an ATS-4B, and I would only have tried to get a radio if my Grandson was ready.... and he is not there yet.... But I seem to remember it like Steve was trying to avoid Pay-Pal, offering a better deal to a check or money order in the mail. Not sure if that would affect the position on the list.
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> From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
> Sent: Wednesday, March 15, 2017 08:28
> To: AT_Sprint@yahoogroups.com
> Subject: RE: [AT_Sprint] Re: SODA POP - now taking orders!
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> ~Steve W2STV
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17582. RE: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-15 15:31:21 UTC
From: Mike Olbrisch
Topic: 17549 Message: 17582

Hi Bob. A follow-on message said it didn't matter, the others just got free shipping for not using pay-pal.

Dunno.... like I said, my interest would have been to get a radio in 40m for my grandson. He likes Morse Code (thinks it is cool), and he is studying for his tech license. That would allow him on 40m-CW. But he hasn't passed the test yet, so I'll just wait that out. When he passes, we'll work on finding a 40m radio of some kind for him. But since he didn't pass the test yet, I wasn't paying close attention. Rather than buy one and stick it on the shelf waiting for him, let others get in on this one. We'll see what comes next.

We are taking him to Germany this summer. I was hopeful that he would be a general before that so he could climb with me in the Alps and operate SOTA. That isn't likely to happen, but he is getting straight As in school, and has been accepted into a special STEM academy for next year..... the radio license takes a back-seat to that.

Good luck. BTW - there are lots of kits and kit makers out there, perhaps you'll find something neat to build.

If you enjoy the building more than the operating, why not offer to build for folks who can't handle the SMT stuff. You can make a few $$$ and have the fun of building too.

Vy73 - Mike - KD5KC.
El Paso, Texas - DM61rt.
W5-SOTA Association Manager.
NA-SOTA info: http://na-sota.org/

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Wednesday, March 15, 2017 08:54
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: SODA POP - now taking orders!

Thanks Mike i didnt know trying to do paypal mattered (didn't think it would oh well) . I simply enjoy the build as I am home much more now since wife had a brain aneurysm in may and I have to be home much more now ! Thanks bob ki4ght
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Sent from my iPhone

On Mar 15, 2017, at 10:39 AM, 'Mike Olbrisch' mike-2007@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

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NA-SOTA info: http://na-sota.org/

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Wednesday, March 15, 2017 08:28
To: AT_Sprint@yahoogroups.com
Subject: RE: [AT_Sprint] Re: SODA POP - now taking orders!

Bob,

I have no flames for you, but I do have some bad news…

Just dropped my check in the mail to Steve.

72,
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WD4ON

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Wednesday, March 15, 2017 10:21
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: SODA POP - now taking orders!

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Sent from my iPhone

On Mar 15, 2017, at 10:13 AM, srmaietta@yahoo.com [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

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17583. Re: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-15 15:48:03 UTC
From: Robert Citronberg
Topic: 17549 Message: 17583

Okay thanks,.. I was just wondering if I was getting a kit or not !!! I have many other bigger real things to worry over !!! Thanks ..Bob ki4ght

Sent from my iPhone

> On Mar 15, 2017, at 11:31 AM, 'Mike Olbrisch' mike-2007@elp.rr.com [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
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> Hi Bob. A follow-on message said it didn't matter, the others just got free shipping for not using pay-pal.
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> Dunno.... like I said, my interest would have been to get a radio in 40m for my grandson. He likes Morse Code (thinks it is cool), and he is studying for his tech license. That would allow him on 40m-CW. But he hasn't passed the test yet, so I'll just wait that out. When he passes, we'll work on finding a 40m radio of some kind for him. But since he didn't pass the test yet, I wasn't paying close attention. Rather than buy one and stick it on the shelf waiting for him, let others get in on this one. We'll see what comes next.
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> Good luck. BTW - there are lots of kits and kit makers out there, perhaps you'll find something neat to build.
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17584. Re: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-15 16:19:00 UTC
From: Shirley Márquez Dúlcey
Topic: 17549 Message: 17584

Steve is just one man doing this stuff. He isn't interested in doing long runs of a single kit or in having to maintain a stock of kits. (His small runs pretty much guarantee that each new one will immediately sell out, so he doesn't have to keep them around and wait for orders.) He's entitled to that choice.

He has made some of his designs more widely available through other companies, which is a good compromise that lets him concentrate on making new stuff but also giving more people the opportunity to get the radios. The SODA POP might be a good candidate for that. I could see a company or a radio club setting up to do multiple kitting runs of it (probably continuing with the pre-soldering of a few key parts - the Si5351A is a bear to do by hand, voice of experience) and keeping it available for a few years.

On Wed, Mar 15, 2017 at 11:48 AM, Robert Citronberg zfun@...
[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Okay thanks,.. I was just wondering if I was getting a kit or not !!! I
> have many other bigger real things to worry over !!! Thanks ..Bob ki4ght
>
> Sent from my iPhone
>
> On Mar 15, 2017, at 11:31 AM, 'Mike Olbrisch' mike-2007@...
> [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
>
>
>
> Hi Bob. A follow-on message said it didn't matter, the others just got
> free shipping for not using pay-pal.
>
>
>
> Dunno.... like I said, my interest would have been to get a radio in 40m
> for my grandson. He likes Morse Code (thinks it is cool), and he is
> studying for his tech license. That would allow him on 40m-CW. But he
> hasn't passed the test yet, so I'll just wait that out. When he passes,
> we'll work on finding a 40m radio of some kind for him. But since he
> didn't pass the test yet, I wasn't paying close attention. Rather than
> buy one and stick it on the shelf waiting for him, let others get in on
> this one. We'll see what comes next.
>
>
>

> We are taking him to Germany this summer. I was hopeful that he would be
> a general before that so he could climb with me in the Alps and operate
> SOTA. That isn't likely to happen, but he is getting straight As in
> school, and has been accepted into a special STEM academy for next
> year..... the radio license takes a back-seat to that.
>
>
>
> Good luck. BTW - there are lots of kits and kit makers out there,
> perhaps you'll find something neat to build.
>
>
>
> If you enjoy the building more than the operating, why not offer to build
> for folks who can't handle the SMT stuff. You can make a few $$$ and
> have the fun of building too.
>
>
>
> Vy73 - Mike - KD5KC.
>
> El Paso, Texas - DM61rt.
>
> W5-SOTA Association Manager.
>
> NA-SOTA info: http://na-sota.org/
>
>
>
>
>
>
>
> *From:* AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com
> <AT_Sprint@yahoogroups.com>]
> *Sent:* Wednesday, March 15, 2017 08:54
> *To:* AT_Sprint@yahoogroups.com
> *Subject:* Re: [AT_Sprint] Re: SODA POP - now taking orders!
>
>
>
>
>
>
>
> Thanks Mike i didnt know trying to do paypal mattered (didn't think it
> would oh well) . I simply enjoy the build as I am home much more now since
> wife had a brain aneurysm in may and I have to be home much more now !
> Thanks bob ki4ght
>
> :)

>
> Sent from my iPhone
>
>
> On Mar 15, 2017, at 10:39 AM, 'Mike Olbrisch' mike-2007@...
> [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
>
>
> I didn't pay real close attention because I have an ATS-3B and an ATS-4B,
> and I would only have tried to get a radio if my Grandson was ready.... and
> he is not there yet.... But I seem to remember it like Steve was trying to
> avoid Pay-Pal, offering a better deal to a check or money order in the
> mail. Not sure if that would affect the position on the list.
>
>
>
> Vy73 - Mike - KD5KC.
>
> El Paso, Texas - DM61rt.
>
> W5-SOTA Association Manager.
>
> NA-SOTA info: http://na-sota.org/
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>
>
> *From:* AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com
> <AT_Sprint@yahoogroups.com>]
> *Sent:* Wednesday, March 15, 2017 08:28
> *To:* AT_Sprint@yahoogroups.com
> *Subject:* RE: [AT_Sprint] Re: SODA POP - now taking orders!
>
>
>
>
>
>
>
>
> Bob,
>
>
>
> I have no flames for you, but I do have some bad news…
>
>
>

> Just dropped my check in the mail to Steve.
>
>
>
> 72,
>
> Don
>
> WD4ON
>
>
>
> *From:* AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com
> <AT_Sprint@yahoogroups.com>]
> *Sent:* Wednesday, March 15, 2017 10:21
> *To:* AT_Sprint@yahoogroups.com
> *Subject:* Re: [AT_Sprint] Re: SODA POP - now taking orders!
>
>
>
>
>
> Hi I hate to bother ANYONE with what I know must be a stoopid question but
> I must . I emailed Steve about 1030 yesterday am (to order for paypal)
> since I never heard anything did I make it or not ? Please don't flame me
> :) ... Bob ki4ght. Thanks
>
> Sent from my iPhone
>
>
> On Mar 15, 2017, at 10:13 AM, srmaietta@... [AT_Sprint] <
> AT_Sprint@yahoogroups.com> wrote:
>
>
>
> @ KF7YFF
>
> Shawn, when you spend many hours designing something wildly popular,
> and then when you spend many more hours ordering parts and then when you
> spend many more hours kitting everything up, and then finally, after you
> spend many more hours creating documentation for your new baby.. When
> *you* do all of this, then you can determine how many to actually sell.
> Now, if you don't do any of this, then it becomes a lot easier. All you
> have to do is keep your email open and check, check check for that release
> note from Steve.
>
>
>
> Sorry you missed out. But really, you had the easier end of the deal. No
> whining.

>
>
>
> ~Steve W2STV
>
>
>
>
>
>
>
>
>
>
>

17585. Re: [AT_Sprint] Re: SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-15 17:29:33 UTC
From: mst72481@...
Topic: 17549 Message: 17585

A while back I asked Steve if this design would be available through LNR like the Mountain Toppers. His response at the time was:

"No, this will always be my personal kit for a number of personal reasons."

So I wouldn't expect to see SODA POP rigs available anywhere else unless he changes/has changed his mind :)

17586. Mounting components off-board

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-15 20:27:04 UTC
From: mst72481@...
Topic: 17586 Message: 17586

To keep things short, is it perfectly fine to mount components off the PCB? Planning my SODA POP build and I'd like mount the antenna, power, paddle, and headphone jacks to the case and not the board.

Thanks all,
Michael N6MST

17587. Soda Pop Picture

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-15 23:32:50 UTC
From: W2CTX
Topic: 17587 Message: 17587

Any pictures with the pencil box?
Ron

17588. Re: [AT_Sprint] Mounting components off-board

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-16 02:57:37 UTC
From: Shirley Márquez Dúlcey
Topic: 17586 Message: 17588

You'll have to get the definitive answer from Steve, but it should work just fine. The jacks provided with the kit are designed for circuit board mounting and may be difficult to mount on a case, so be prepared to supply your own replacements if you can't make them work.

On Wed, Mar 15, 2017 at 4:27 PM, mst72481@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> To keep things short, is it perfectly fine to mount components off the
> PCB? Planning my SODA POP build and I'd like mount the antenna, power,
> paddle, and headphone jacks to the case and not the board.
>
> Thanks all,
> Michael N6MST
>
>
>

17589. PSK 31?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-16 12:42:55 UTC
From: Bob Mueller
Topic: 17589 Message: 17589

Can someone explain why the two band MTR is able to do PSK31 and the three band is not? Also, please confirm that I have that correct: That the two band MTR can do PSK31 and the three band can not.

I hope everyone has fun with the Soda Pop's. Looks like fun!

--... ...--
Bob Mueller
K8MD
bob@...

17590. Re: [AT_Sprint] SODA POP - now taking orders!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-16 01:22:26 UTC
From: Shawn Reed
Topic: 17549 Message: 17590

Thank you Hank, for your kind reply. Gracious of you. As fate has it...The kit got past me. No big deal other than I was amped some towards building an enclosure. I am glad to own several of Weber's design radios. MTR5B, MTR2b, MMR40 rxtx, and of course, a little dd that I fit into a rather small, Perrins alu. fly box.---choice!

I am halfway done building a Ft. Tuthill 80M , from off some one's shelf. Lucky find. Hope I be deploying a half wave dipole this summer, as all things go well, and I have much to give, in return. 73, Shawnr. kf7yff.

On Tue, 3/14/17, Hank Greeb n8xx@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

Subject: Re: [AT_Sprint] SODA POP - now taking orders!
To: AT_Sprint@yahoogroups.com
Date: Tuesday, March 14, 2017, 2:37 PM

Ya gotta be quick, Shawn, to get into the first
round of a kit offering

by KD1JV. Fortunately, I squoke through with my order, even
though I

didn't check e-mail after about 10 p.m. last evening.
It was about

1300Z this morning when I saw Steve's announcement, and
thought I had

missed, but, fortunately, timing was right!

I'm not sure which band I'll try for it - maybe 80,
since my AT-Sprint

original version, which I dearly love, doesn't cover 80.
I LOVE the

smaller rigs, even though I did plug down almost a grand
last year for

an Elecraft KX2. So far, after about 9 months, I still
haven't

connected a microphone to it, so the KX2 is a $1K CW rig
which does only

a bit more than the AT-Sprint. :)

Patience, maybe Steve will put out a second batch, he sometimes does

that, or sells the idea to one of the vendors and they become generally

available, but for a higher price.

72/73 de n8xx Hg

QRP >99.44% of the time

On 3/14/2017 4:30 PM, Shawn Reed sreedq1014@...m [AT_Sprint] wrote:

> When you say --hope you all..do you mean the few? Sad to say, you re not worth my wait anymore. Sreed. kf7yff.

17591. Re: Soda Pop Picture

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-16 13:21:40 UTC
From: mst72481@...
Topic: 17587 Message: 17591

There are a couple photos in the manual, looks pretty cool.

17592. Re: [AT_Sprint] Mounting components off-board

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-16 00:41:44 UTC
From: Steven Weber
Topic: 17586 Message: 17592

Sure, not a problem. In some cases it's better to board mount and some times not. This layout gives you either option.

Steve KD1JV

To keep things short, is it perfectly fine to mount components off the PCB? Planning my SODA POP build and I'd like mount the antenna, power, paddle, and headphone jacks to the case and not the board.

Thanks all,
Michael N6MST

17593. Re: [AT_Sprint] PSK 31?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-16 15:49:22 UTC
From: Steven Weber
Topic: 17589 Message: 17593

Yes, that is correct. Couple of reasons. One, it didn't work all that well and few people used it and two, Volteck stopped supporting the PocketDigi program, which was written to run on PDAs running Windows Mobile or XP, OS which most people no longer use or have.

Steve KD1JV
Can someone explain why the two band MTR is able to do PSK31 and the three band is not? Also, please confirm that I have that correct: That the two band MTR can do PSK31 and the three band can not.

I hope everyone has fun with the Soda Pop's. Looks like fun!

17594. Re: Soda Pop Picture

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-16 17:07:15 UTC
From: k7ew@...
Topic: 17587 Message: 17594

- - cross-checking the first and second versions of the manual...refering to pg 4: Should we alter the written instructions a little: change C49 to C48, in the 3rd line of instructions?
- - no intention to nit-pick! If we want a quieter sidetone, go C48 = 0.001uF (102) ; if want louder sidetone, change that to 0.01 (103), plus putting in C49 @ 0.001 (102)...yes? interesting note about this (last para' on pg 4)!

17595. Re: [AT_Sprint] Soda Pop Picture

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-16 15:41:00 UTC
From: Steven Weber
Topic: 17587 Message: 17595

Included in the new manual, which is now in the file section
Steve

Any pictures with the pencil box?

Ron

17596. Re: [AT_Sprint] Re: Soda Pop Picture

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-16 20:39:07 UTC
From: Steven Weber
Topic: 17587 Message: 17596

The part numbers were re-sequenced between the boards, so they don't match up between the manuals. A couple of extra caps and resistors were added for the audio low pass filter on the REV A board.

Orignally, C48 was to be 0.001 ufd and C49 was to be 0.01 ufd, but that resulted in a sidetone which was very faint. Simply swapping the values made it a little too loud, causing the agc to kick in. Eliminating C49 and making C48 0.001 again resulted in a decent volume.

Steve KD1JV

- - cross-checking the first and second versions of the manual...refering to pg 4:
Should we alter the written instructions a little: change C49 to C48, in the 3rd line of instructions?
- - no intention to nit-pick! If we want a quieter sidetone, go C48 = 0.001uF (102) ; if want louder sidetone, change that to 0.01 (103), plus putting in C49 @ 0.001 (102)...yes? interesting note about this (last para' on pg 4)!

17597. Re: [AT_Sprint] PSK 31?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-16 19:17:55 UTC
From: Bob Mueller
Topic: 17589 Message: 17597

reason number 1 is a pretty darn good reason.

there are plenty of Android phones out there with support for PSK31.
Sounds like a great match with an MTR / ATS.

--... ...--
Bob Mueller
K8MD
bob@...

On Thu, Mar 16, 2017 at 11:49 AM, 'Steven Weber' steve.kd1jv@...
[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> □
> Yes, that is correct. Couple of reasons. One, it didn't work all that well
> and few people used it and two, Volteck stopped supporting the PocketDigi
> program, which was written to run on PDAs running Windows Mobile or XP, OS
> which most people no longer use or have.
>
> Steve KD1JV
>
> Can someone explain why the two band MTR is able to do PSK31 and the three
> band is not? Also, please confirm that I have that correct: That the two
> band MTR can do PSK31 and the three band can not.
>
> I hope everyone has fun with the Soda Pop's. Looks like fun!
>
>
>
>
>

17598. Re: [AT_Sprint] PSK 31?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-16 23:14:43 UTC
From: Steven Weber
Topic: 17589 Message: 17598

Well, it might be if the ATS/MTR were a sideband radio. The way Vojtech got around that was by creating a unique audio modum to talk to the ATS rig via the paddle jack and control the DDS chip and the other functions of the rig directly. To make it work with an Android phone, a whole new app which would only work with the ATS/MTR rigs would have to be written.

Basically, it was one of those good ideas which sort of worked but really wasn't all that practical.

Steve KD1JV
reason number 1 is a pretty darn good reason.

there are plenty of Android phones out there with support for PSK31. Sounds like a great match with an MTR / ATS.--... ...--
Bob Mueller
K8MD
bob@...

17599. Re: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-16 23:35:32 UTC
From: dl2arl@...
Topic: 17540 Message: 17599

Ladies and Gents,
My problem is solved (flashing the MTRs)! Learned a lot, most of all following: does anybody have a spare MSP processor to fit the MTRs (MSP430F2132IPW)? I did not succeed in burning my professor instead of flashing it, but I was not far from doing so: this is why I look for a replacement (I know that Mouser should have some, but I was asking the group: there might be several left-over professors that are not needed any more and after all, from Mouser the postage and handling would cost more than the chip itself).

Back to the story: with help from Zoli HA5CQZ and some hints from Steve KD1JV I was able to solve the problem of flashing a new(er) firmware to my MTR's. But to cut a long story short, I did finally what I should have done from the beginning: I bravely installed the IAR Workbench, hoaxed a little to make it run in spite of the obsolete registration key I had and : bingo it worked as per instructions given from Steve in "MTR flashing with launchpad.pdf". I also had help from the FET software that is free and easy to use even for a digital analplabete like me.

With the MTR5Bd and MTR3Bd the problem was not so hard to solve because there are *.bin in the files section of this group. But for the MTR2bander I had none. In the files section, in the MTR directory (refering to the original MTR 2Bander) there are three assembler files (*s43) to be found, none of them compiled:

°MTR_2
°MTR_3
°MTR_5

Now, in spite of their numbering (which I was to find out later refers to the software version number, not to the name of the MTR Rig itself), they all refer to the 2Bander. In my case, after several trials I found out that the MTR_5 was misbehaving, bringing the rig in an erratic state. The MTR_3 best fitted my needs.

Lessons learned:

There is a difference between the MTR2Bd, MTR3Bd on one side and the MTR5Bd on the other side concerning the numbering of the three pins used to connect the Rig with the TI-Launcher. Two of the three pins needed to flash the professor are reversed: small detail that has costed me several of the sparse hairs on my head. I should have ReadTFM with more care.

Newest firmware is not always best. I did not desire the last one, I needed one with the fixed 80m bug. I have it now and I also have the *.bin for this one so if anyone in need, just drop me a mail.

One must take care when connecting the Radio to the Launchpad: depending on the mains configuration and on the structure of the power supply used, there might be a potential difference between the two grounds. If you first connect the ground of the rig with the one of the launcher having the pins wired separately, you might be lucky, but if you have all pins in one socket (like me), signal pins might connect earlier than the ground path and

the discharge might happen within the professor. It is best to do like Steve suggests: do not use any kind of mains-transformer for this purpose for the MTR, but a small 9V block and be sure to connect the ground wire first between Rig and Launchpad.

Never grump against the establishment: if they need to know the maiden name of your greatgran'ma to give you a time limited demo version, so they must be knowing why they do so. Think yourself a fancy one, you are writing history.

It really does make fun to experiment with the MTRs. Most rewarding of all is the helpful reaction of the fellow hams (both ladies and gents) in this group. It is a pleasure to be part of it! Thanks to all that helped.

Yours friendly, 73, Razvan DL2ARL

17600. Re: [AT_Sprint] Re: Soda Pop Picture

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-17 00:35:25 UTC
From: kingery713@...
Topic: 17587 Message: 17600

Steve: Is it, therefore, correct to change the line on P.4 from:
0.001 uF (102) BRN/BLK/RED C49, C54 to:
0.001 uF (102) BRN/BLK/RED C48, C54 ?

Also, the sidetone portion of the schematic seems discordant with the board layout. I think the following corrections may be appropriate for the schematic:

Existing Should Be
C30 C48
C29 C49 (delete)
R27 R36
C28 C51
R26 R40

This looks like a nice project - I like the knob!

73,
Rob - AE7AP

17601. Re: [AT_Sprint] PSK 31?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-17 08:09:14 UTC
From: bubnikv@...
Topic: 17589 Message: 17601

> One, it didn't work all that well

It actually worked and still works very well. And I think the way it works is truly unique and extremely efficient solution, which I am very proud of. Once set up, it works like a charm every time.

> and few people used it

and I am guilty for that as I was not able to communicate well how it works, how to set it up and how to use it. I think I am better now after the lessons I have learned during my prematurely terminated PhD. studies (at least the time has not been totally wasted, I learned some tricks on writing papers oto make them readable and to catch interest). Just the principle of how the transmit mode works would make a wonderful paper for QEX.

Also I agree that the code for the MSP430 architecture was not easy to read and integrate, but I am afraid there is not much to do about it, apart from a better documentation.

> Volteck stopped supporting the PocketDigi program, which was written to run on PDAs running Windows Mobile or XP, OS which most people no longer use or have.

The software runs on Windows 7, 8 or 10 very well. I think it would even run on a modern ARM based Windows 10 laptop if recompiled. It has been written in a pure Win32 API, so it should be a one day job even for a non-programmer to compile for Windows 10 ARM tablet.

There is still not a multi-mode digital application on Android capable of what the old PocketDigi on a 200MHz Pocket PC was capable of. Sorry, with 4 kids I don't have time to port PocketDigi to Android. If you own a 3D printer, you may enjoy the fruits of my labour though as I am the guy behind the Slic3r Prusa Edition software.

73, Vojtech OK1IAK

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :

☐ Yes, that is correct. Couple of reasons. One, it didn't work all that well and few people used it and two, Volteck stopped supporting the PocketDigi program, which was written to run on PDAs running Windows Mobile or XP, OS which most people no longer use or have.

Steve KD1JV
Can someone explain why the two band MTR is able to do PSK31 and the three band is not? Also, please confirm that I have that correct: That the two band MTR can do PSK31 and the three band can not.

I hope everyone has fun with the Soda Pop's. Looks like fun!

17602. Re: [AT_Sprint] Re: Soda Pop Picture

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-17 15:16:03 UTC
From: Steven Weber
Topic: 17587 Message: 17602

Yes, it looks like I some how missed correcting the designations of the sidetone parts on the schematic the 0.001 location change. Hopefully, that's the extent of the discreptencies.

I'll fix the manual later for those with OCD :)

Steve

Steve:
Is it, therefore, correct to change the line on P.4 from:
0.001 uF (102) BRN/BLK/RED C49, C54 to:
0.001 uF (102) BRN/BLK/RED C48, C54 ?

Also, the sidetone portion of the schematic seems discordant with the board layout. I think the following corrections may be appropriate for the schematic:

Existing Should Be
C30 C48
C29 C49 (delete)
R27 R36
C28 C51
R26 R40

This looks like a nice project - I like the knob!

73,
Rob - AE7AP

17603. New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-17 18:03:55 UTC
From: AT_Sprint@yahoogroups.com
Topic: 1459 Message: 17603

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the AT_Sprint
group.

File : /SODA POP/SODAPOP_ final.pdf
Uploaded by : kd1jv <steve.kd1jv@...>
Description : 1st edit

You can access this file at the URL:
https://groups.yahoo.com/neo/groups/AT_Sprint/files/SODA%20POP/SODAPOP_%20final.pdf

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

kd1jv <steve.kd1jv@...>

17604. SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-17 22:19:53 UTC
From: pd7lol@...
Topic: 17604 Message: 17604

Hi all,
I'm planning to make band modules for the SODA POP and would like to cover at least 20m and 40m. According to the table under "Band specific parts", that would mean that L3 and L4 should have different values. I'm considering three options:

1. Try to pick a value in between, like 8.2uH, and hope it's fine for both bands / perhaps increase CT1 and CT2 if not). This has the obvious disadvantage of not being able to expand to other bands.
2. Two band modules per band: one for the band-specific components near the antenna, and one for L3 and L4. It would be tricky and these modules would be really small, but there should be enough space under CT1 and CT2.
3. Go with some coax from CT1 and CT2 to around the antenna and put L3 and L4 on the main band module. This is probably the easiest option, both to build and to use).

Any thoughts about this? Just brainstorming.

Best 73s,
Camil, PD7LOL

P.S. Steve: In the SODA POP manual under "Modifications needed for using band filter modules", an "L shaped board" is mentioned. If I'm not mistaken, this is outdated (from the time that the idea was to have two separate boards that could be put together in different ways).

17605. Re: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-17 09:06:11 UTC
From: Colin Tuckley
Topic: 17540 Message: 17605

On 16/03/17 23:35, Razvan wrote:

> In the MTR directory (refering to the original MTR 2Bander) there are
> three assembler files (*s43) to be found, none of them compiled:

> °MTR_5

This is my version of the code with added 60m and all known (at the
time) bugs fixed. There is no binary version in the files section
because you need Windows tools to generate one and I am a Linux user. I
do have access to a Windows system now so I might generate and upload a
.bin file.

> In my case, after several trials I found out that the MTR_5 was
> misbehaving, bringing the rig in an erratic state.

NO it is not misbehaving, the user is misbehaving because he did *not*
read the instructions. After installing my version of the software the
user *must* force a recalibration of the rig because the layout of the
calibration data had to change to fit the extra 60m data in.

> Newest firmware is not always best.

It can be if you read the instructions properly.

73, Colin G8TMV

--
Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
Debian Developer | +44(0)7799 143369 | 0xFA0C410738C9D903

17606. Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-18 04:48:49 UTC
From: vk3byd@...
Topic: 17604 Message: 17606

I prefer the the move all band components option,
L7, L8, C12, C5, C6, C2 and L3, L4, CT1, CT2, C31

Make a one band PCB that’s takes all of these and use a header pin and socket arrangement to mount the board. This would put all of the band components on the same side.
Subject to space you may get two bands on the one plug in?

It would be over size but the larger PCB would provide better support when plugged in.
This is all best guess looking at the photos, so it is also hard to judge lead lenght and therfore the impact on performance.

73,
Warren vk3byd

17607. RE: [AT_Sprint] SODA POP - now SOLD OUT!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-19 00:12:27 UTC
From: Heilman, William Clay
Topic: 17561 Message: 17607

Mine arrived in this afternoons mail. Now to finish up a couple of things and try to build before it gets too hot my garage.

73 -de ke7ngo Clayton

Compone Accomoda Supera
"It's only a mistake if you don't learn from it."

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Tuesday, March 14, 2017 08:26
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] SODA POP - now SOLD OUT!

☐
Thanks for all the orders and it now looks like I'm sold out!

I'll start working on getting back to everyone with the confermations and will start shipping once I dig out from this little Nor'easter in a couple of days....

73, Steve KD1JV

17608. Re: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-19 01:17:20 UTC
From: dl2arl@...
Topic: 17540 Message: 17608

"This is my version of the code ...It can be if you read the instructions properly."

Sorry dear Colin of having done wrong to your software, we sure all appreciate, but even after looking after something like the instructions for it, I had found none. Probably my fault, I will look again in the files section. I did even read into the .s43 assembler code...

When noticing that the "readout" was running in "slow motion", I thought about something like the need of a fresh calibration. But it was only a for a moment. The second thing I noticed was that pressing Fn brought "stars and stripes" to the display, like having the Rit enabled. This is when I thought that I had bricked my MTR. Only after succeeding to flash the Version 3 of the firmware, which by the way fully fulfills my needs, did I find my peace of mind again.

Zoli, HA5CQZ, to whom I am very indebted for his friendly help, gave me following information:

To create binary I used this command line

xlink.exe -Fraw-binary -o MTR_5.bin MTR_5.r43

and sent me the binary files to all MTR2Band Versions 2,3 and 5. Anyone in need of these is welcome to ask either me or Zoli directly (he is a member of this group).

73, Razvan DL2ARL

17609. Re: [AT_Sprint] PSK 31?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-19 01:28:47 UTC
From: dl2arl@...
Topic: 17589 Message: 17609

Hi Gang,
one very comfortable way of finding out if PSK with ATS-MTR works or doesn't is try Vojtech's standalone PSK decoder he built around a Nokia Display and the MTRS430 found as a gadget and appetizer in each TI-Launcher box. The only thing harder to become for this project is a 40kHz xtal. Some said it could be found at mouser, I found it in ePay in a french shop called brico-loisirs, the product having the number and the name:

180557398106
2 x Quartz 40 KHZ HC38 #QZ40K

(I have no connections what ever to this shop)

This is a no-excuses weekend construction for anybody/everybody having a TI-Launcher. This gives the opportunity to test at least the receive part of PSK without having to have an obsolete PDA. The main problem with PSK on ATS/MTR is in my humble opinion the fact that with these rigs it is quite difficult to tune precisely enuf for PSK. But knowing what you do might help. For myself, I am very, very proud and happy to have my MTR2Bander with PSK. I would not like to miss it. And an ATS is a jewel of PSK.

Sure it is harder as with an SSB transceiver with 3kHz audio bandwidth and a software to tune for itself within the soundblaster window while the OP can enjoy pressing F4 and F7 on the keyboard. But this hardship makes it be more fun.

Try the standalone decoder published by Vojtech and see for yourself. I did not yet, but I will soon.

73, Razvan DL2ARL

17610. Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-19 11:07:05 UTC
From: pd7lol@...
Topic: 17604 Message: 17610

That's a nice idea as well, maybe I'll do that. Though perhaps I'll make the board not the same size but one quarter, to save backpack space and weight. Then I'll cut some foam of the same height as the band module to support the rest of the main print.

And yes, I didn't realise that CT1, CT2 and some other parts will also have to go on the band module even though the values are not different for different bands.

73,
Camil, PD7LOL

17611. Re: PSK 31?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-20 13:28:19 UTC
From: twologsinabucket@...
Topic: 17589 Message: 17611

Pocketdigi on the MTR has always interested me, but my MTR is the LNR version and doesn't support Pocketdigi.

Over the last few days, I modified the MTR 2 band firmware so that it works on the LNR 3 band version. The only modification I made to the radio hardware was adding a pull-up resistor to the key line. This mod still allows the original LNR version firmware to function.

Pocketdigi works fine for me under Windows 10x64 and with my old Treo 700w PPC cell phone. I made two interface cords, one for a laptop and one for the Treo. It was a bit tricky to get the Treo PPC interface cord to work in both directions through the headset jack, but I finally figured it out.

If anyone is interested, I can post my firmware and schematics for the interfaces.

Drew K9QV

17612. Re: PSK 31?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-20 20:09:23 UTC
From: colin.evans2@...
Topic: 17589 Message: 17612

I made up the simple interface shown in the MTR mk1 manual (2 bander). Using the output from a Windows 7 netbook running PocketDigiKey, the rig transmits as expected.

For receive, I'm wondering whether the audio from the MTR can be fed into the mic/line in socket on the computer sound card. I assume the mic socket is fed with voltage to power up an external mic element, would it be best to use a dc blocking cap and what would be a suitable value?

-Colin M1BUU

17613. RE: [AT_Sprint] Digest Number 3086

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-21 04:14:24 UTC
From: Carey, George
Topic: 17613 Message: 17613

I would be very interested. Thanks!

George, N9DXP

-----Original Message-----
From: AT_Sprint@yahoogroups.com
[AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>]
Sent: Monday, March 20, 2017 09:17 PM Central Standard Time
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Digest Number 3086

[Yahoo! Groups] <https://groups.yahoo.com/neo;_ylc=X3oDMTJlZnFmMXJmBF9TAzk3MzU5NzE1BGdycEl
kAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDZnRyBHNsawNnZnAEc3RpbWUDMTQ5MDA2MjY0Mg-->
AT Sprint Group<https://groups.yahoo.com/neo/groups/AT_Sprint/info;_ylc=X3oDMTJlc3JnamZoBF
9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDaGRyBHNsawNocGgEc3RpbWUD
MTQ5MDA2MjY0MQ-->
1 Message
Digest #3086
1a
Re: PSK 31? by drew_k9qv
Message
1a
Re: PSK 31?<https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/topics/17611;_ylc=
X3oDMTJzN2E5ZTNsBF9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxNz
YxMQRzZWMDZG1zZwRzbGsDdm1zZwRzdGltZQMxNDkwMDYyNjQy>
Mon Mar 20, 2017 9:01 am (PDT) . Posted by:
drew_k9qv<mailto:twologsinabucket@yahoo.com?subject=Re%3A%20PSK%2031%3F>
Pocketdigi on the MTR has always interested me, but my MTR is the LNR version and doesn't support Pocketdigi.

Over the last few days, I modified the MTR 2 band firmware so that it works on the LNR 3 band version. The only modification I made to the radio hardware was adding a pull-up resistor to the key line. This mod still allows the original LNR version firmware to function.

Pocketdigi works fine for me under Windows 10x64 and with my old Treo 700w PPC cell phone. I made two interface cords, one for a laptop and one for the Treo. It was a bit tricky to get the Treo PPC interface cord to work in both directions through the headset jack, but I finally figured it out.

If anyone is interested, I can post my firmware and schematics for the interfaces.

Drew K9QV

Reply to sender<mailto:twologsinabucket@yahoo.com?subject=Re%3A%20PSK%2031%3F> . Reply to group<mailto:AT_Sprint@yahoogroups.com?subject=Re%3A%20PSK%2031%3F> . Reply via Web Post<h
ttps://groups.yahoo.com/neo/groups/AT_Sprint/conversations/messages/17611;_ylc=X3oDMTJzMms

3cTR2BF9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxNzYxMQRzZWMDZG1zZwRzbGsDcnBseQRzdGltZQMxNDkwMDYyNjQy?act=reply&messageNum=17611> . All Messages (7)<https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/topics/17589;_ylc=X3oDMTM4MjExa2VoBF9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxNzYxMQRzZWMDZG1zZwRzbGsDdnRwYwRzdGltZQMxNDkwMDYyNjQyBHRwY0lkAzE3NTg5> . Top ^
Visit Your Group<https://groups.yahoo.com/neo/groups/AT_Sprint/info;_ylc=X3oDMTJmamExaDNqBF9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2Z2hwBHN0aW1lAzE0OTAwNjI2NDI->

* New Members<https://groups.yahoo.com/neo/groups/AT_Sprint/members/all;_ylc=X3oDMTJnZ2xyZGF1BF9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2bWJycwRzdGltZQMxNDkwMDYyNjQy> 6

[Yahoo! Groups]<https://groups.yahoo.com/neo;_ylc=X3oDMTJlZnFmMXJmBF9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDZnRyBHNsawNnZnAEc3RpbWUDMTQ5MDA2MjY0Mg-->
• Privacy<https://info.yahoo.com/privacy/us/yahoo/groups/details.html> • Unsubscribe<mailto:AT_Sprint-unsubscribe@yahoogroups.com?subject=Unsubscribe> • Terms of Use<https://info.yahoo.com/legal/us/yahoo/utos/terms/>

17614. Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-21 12:38:08 UTC
From: vljubojevic@...
Topic: 17604 Message: 17614

What are the technical reasons for 15m band module not being in SodaPop band list?

Maybe that was explained earlier during SodaPop development discussions, but I can not find anything in list archives. Poor propagation or lack of interest could be the main reason 15m is omitted... Since other rigs of similar design do have 15m, I was wondering if 15m is impractical or impossible to implement in SodaPop?.

73 Fric YU1WC

17615. Re: PSK 31?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-21 11:53:43 UTC
From: twologsinabucket@...
Topic: 17589 Message: 17615

1uF will work. Mic inputs may like having a 10k:1k voltage divider as well.

I have had success connecting the MTR headphone out directly to the sound card input and setting the sound card input level very low. It depends on the sound card type, line-in vs mic etc.

Drew

17616. RE: [AT_Sprint] Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-21 15:57:37 UTC
From: <steve.kd1jv@...>
Topic: 17604 Message: 17616

The main reason was the registers ran out of bits to hold the value needed for 15M. I might have fixed that by changing the register type from signed to unsigned to gain an extra bit.

It would be easy enough to add the band to the listing if you desire. The Ardiuno IDE is a free download and the UNO board to program the chip is cheap and available from many sources. For filter values, look up what was used on the MTR-5B kit.
Steve KD1JV

What are the technical reasons for 15m band module not being in SodaPop band list?

Maybe that was explained earlier during SodaPop development discussions, but I can not find anything in list archives. Poor propagation or lack of interest could be the main reason 15m is omitted... Since other rigs of similar design do have 15m, I was wondering if 15m is impractical or impossible to implement in SodaPop?.

73 Fric YU1WC

17617. Re: [AT_Sprint] Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-21 20:28:31 UTC
From: Mike Dooley
Topic: 17604 Message: 17617

I went looking for the UNO board and ended up purchasing the UNO Super Starter kit with tutorial from Amazon for $35:
https://www.amazon.com/gp/product/B01D8KOZF4/ref=oh_aui_detailpage_o01_s00?ie=UTF8&psc=1
Comes with the board and lots of other parts plus the tutorial to learn from.

After I'm done with the radio I can learn some more about using these processors.MikeN5BGZ

17618. Re: [AT_Sprint] Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-21 21:22:04 UTC
From: Hank Greeb
Topic: 17604 Message: 17618

Probably because of the DDS frequency not being high enough? Just a SWAG.

72/73 de n8xx Hg
QRP >99.44% of the time

On 3/21/2017 8:38 AM, vljubojevic@... [AT_Sprint] wrote:

What are the technical reasons for 15m band module not being in SodaPop band list?

Maybe that was explained earlier during SodaPop development discussions, but I can not find anything in list archives. Poor propagation or lack of interest could be the main reason 15m is omitted... Since other rigs of similar design do have 15m, I was wondering if 15m is impractical or impossible to implement in SodaPop?.

73 Fric YU1WC

17619. Re: [AT_Sprint] Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-21 22:59:00 UTC
From: dl2arl@...
Topic: 17604 Message: 17619

Soda Pop most probably does not have a DDS; 99.44% for sure %->

17620. Re: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-21 23:12:42 UTC
From: dl2arl@...
Topic: 17540 Message: 17620

"G8TMV: This is my version of the code..It can be if you read the instructions properly."

Hi Colin, Hallo Group,
I really took time and searched the Files section for those instructions I should have read, but found none. I even lectured the nicely written and commented MTR_5.s43 assembler code, but still found no instructions to read and recalibrate the MTR2Bander when flashed with MTR_5-firmware.

Maybe you can help. Actually, the MTR_3.s43 does perfectly fit my bill, so it is just for the purpose of following your fingerpointing that I have looked after those instructions I should have so properly read.

73, Razvan DL2ARL

17621. Re: [AT_Sprint] Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-21 22:55:31 UTC
From: Shirley Márquez Dúlcey
Topic: 17604 Message: 17621

The SODA POP uses an Si5351A PLL clock generator, not a DDS. That chip will go as high as 200 MHz though the library may be limited to 160 MHz for now. (The Si5351A was originally rated for 160 MHz operation and was later upgraded.) High enough for ham bands through 2 meters, though the rest of the SODA POP circuit won't go that high.

On Tue, Mar 21, 2017 at 5:22 PM, Hank Greeb n8xx@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Probably because of the DDS frequency not being high enough? Just a SWAG.
>
> 72/73 de n8xx Hg
> QRP >99.44% of the time
>
> On 3/21/2017 8:38 AM, vljubojevic@... [AT_Sprint] wrote:
>
> What are the technical reasons for 15m band module not being in SodaPop
> band list?
>
> Maybe that was explained earlier during SodaPop development discussions,
> but I can not find anything in list archives. Poor propagation or lack of
> interest could be the main reason 15m is omitted... Since other rigs of
> similar design do have 15m, I was wondering if 15m is impractical or
> impossible to implement in SodaPop?.
>
> 73 Fric YU1WC
>
>
>
>

17622. Re: [AT_Sprint] Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-22 00:23:52 UTC
From: Steve Saslow
Topic: 17604 Message: 17622

translate, please: SWAG?

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Hank Greeb n8xx@arrl.org [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Tuesday, March 21, 2017 9:22 PM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: SODA POP band modules

Probably because of the DDS frequency not being high enough? Just a SWAG.

72/73 de n8xx Hg
QRP >99.44% of the time

On 3/21/2017 8:38 AM, vljubojevic@...<mailto:vljubojevic@...> [AT_Sprint] wrote:

What are the technical reasons for 15m band module not being in SodaPop band list?

Maybe that was explained earlier during SodaPop development discussions, but I can not find anything in list archives. Poor propagation or lack of interest could be the main reason 15m is omitted... Since other rigs of similar design do have 15m, I was wondering if 15m is impractical or impossible to implement in SodaPop?.

73 Fric YU1WC

17623. Re: [AT_Sprint] Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-22 00:31:46 UTC
From: ktalbott
Topic: 17604 Message: 17623

SWAG is what usually preceeds the SNAFU.

Sent from Samsung Mobile

-------- Original message --------
From: "Steve Saslow k7ew@hotmail.com [AT_Sprint]" <AT_Sprint@yahoogroups.com>
Date: 03/21/2017 8:23 PM (GMT-05:00)
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: SODA POP band modules

translate, please: SWAG?

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Hank Greeb n8xx@arrl.org [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Tuesday, March 21, 2017 9:22 PM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: SODA POP band modules

Probably because of the DDS frequency not being high enough? Just a SWAG.

72/73 de n8xx Hg
QRP >99.44% of the time

On 3/21/2017 8:38 AM, vljubojevic@gmail.com [AT_Sprint] wrote:
What are the technical reasons for 15m band module not being in SodaPop band list?

Maybe that was explained earlier during SodaPop development discussions, but I can not find anything in list archives. Poor propagation or lack of interest could be the main reason 15m is omitted... Since other rigs of similar design do have 15m, I was wondering if 15m is impractical or impossible to implement in SodaPop?.

73 Fric YU1WC

17624. Re: [AT_Sprint] Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-22 00:58:18 UTC
From: Mike Dooley
Topic: 17604 Message: 17624

Doh... the board is powered by the USB connection from the PC... The 9 volt battery is for the experiments.
MikeN5BGZ

From: "Mike Dooley msdooley@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>
To: "AT_Sprint@yahoogroups.com" <AT_Sprint@yahoogroups.com>
Sent: Tuesday, March 21, 2017 3:31 PM
Subject: Re: [AT_Sprint] Re: SODA POP band modules

  I went looking for the UNO board and ended up purchasing the UNO Super Starter kit with tutorial from Amazon for $35:
https://www.amazon.com/gp/product/B01D8KOZF4/ref=oh_aui_detailpage_o01_s00?ie=UTF8&psc=1
Comes with the board and lots of other parts plus the tutorial to learn from.

After I'm done with the radio I can learn some more about using these processors.MikeN5BGZ

17625. RE: [AT_Sprint] Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-22 02:24:49 UTC
From: <steve.kd1jv@...>
Topic: 17604 Message: 17625

I bet the receiver would work okay on 6M. Might need a preamp though. The tricky part would be the transmitter. I might have to give that a try and see what happens.

Steve KD1JV

From: Shirley Márquez Dúlcey mark@...[AT_Sprint]

The SODA POP uses an Si5351A PLL clock generator, not a DDS. That chip will go as high as 200 MHz though the library may be limited to 160 MHz for now. (The Si5351A was originally rated for 160 MHz operation and was later upgraded.) High enough for ham bands through 2 meters, though the rest of the SODA POP circuit won't go that high.

17626. Re: [AT_Sprint] Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-22 01:09:58 UTC
From: Shirley Márquez Dúlcey
Topic: 17604 Message: 17626

You can also use the 9V battery to power the Uno when it's not plugged into your PC, so long as your kit provides a 9V battery clip with a barrel connector to go into the matching socket on the Uno. The program is stored in flash memory on the ATMega328 chip so it works even if you disconnect.

On Tue, Mar 21, 2017 at 8:58 PM, Mike Dooley msdooley@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Doh... the board is powered by the USB connection from the PC... The 9
> volt battery is for the experiments.
> Mike
> N5BGZ
>
> ------------------------------
> *From:* "Mike Dooley msdooley@... [AT_Sprint]" <
> AT_Sprint@yahoogroups.com>
> *To:* "AT_Sprint@yahoogroups.com" <AT_Sprint@yahoogroups.com>
> *Sent:* Tuesday, March 21, 2017 3:31 PM
> *Subject:* Re: [AT_Sprint] Re: SODA POP band modules
>
>
> I went looking for the UNO board and ended up purchasing the UNO Super
> Starter kit with tutorial from Amazon for $35:
>
> https://www.amazon.com/gp/product/B01D8KOZF4/ref=oh_aui_
> detailpage_o01_s00?ie=UTF8&psc=1
>
> Comes with the board and lots of other parts plus the tutorial to learn
> from.
>
> After I'm done with the radio I can learn some more about using these
> processors.
> Mike
> N5BGZ
>
>
>
>

17627. New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-22 09:46:17 UTC
From: AT_Sprint@yahoogroups.com
Topic: 1459 Message: 17627

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the AT_Sprint
group.

File : /MTR /MTR_5.1.s43
Uploaded by : g8tmv <colin@...>
Description : Updated 2-band MTR firmware from G8TMV with the following changes: Fix cw memory keyer spacing Add version announce code Add 60m band

You can access this file at the URL:
https://groups.yahoo.com/neo/groups/AT_Sprint/files/MTR%20/MTR_5.1.s43

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

g8tmv <colin@...>

17628. Re: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-22 09:48:27 UTC
From: Colin Tuckley
Topic: 17540 Message: 17628

On 21/03/17 23:12, Razvan wrote:

> I really took time and searched the Files section for those
> instructions I should have read, but found none.

Hmm... this is all very strange. The file does appear to be missing from the files section, also the similar file for my ATS3B firmware upgrade is missing.

There were also some forum messages about this but I can't find them either.

> I even lectured the nicely written and commented MTR_5.s43 assembler
> code, but still found no instructions to read and recalibrate the
> MTR2Bander when flashed with MTR_5-firmware.

Ah, now that is a BUG, I'll fix it and re-upload the file.

Note that it's only a problem on a rig that has had older firmware installed. If you never run old firmware before you upgrade then it is not a problem.

If the rig *has* been used with older firmware then you need to force a recalibration (by powering it up with the SPLIT and UP buttons pressed).

MTR_5.1.s43 now uploaded to the files section. The only change is the addition of a text warning in the header about the need to recalibrate.

73, Colin G8TMV

--
Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
Debian Developer | +44(0)7799 143369 | 0xFA0C410738C9D903

17629. Re: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-22 22:11:42 UTC
From: dl2arl@...
Topic: 17540 Message: 17629

> Hmm... this is all very strange.

(speaking of the version "5" for the MTR 2bander and the missing instructions for it)

Yep. This strangeness has costed me several of the sparse hairs still left on my main processing unit and a weekend of grumbling and fumbling. I had a faint feeling that the erratic behavior might come from wrong calibration data being mistakenly interpreted by the new firmware, but it was only a feeling and much too weak.
This is why I played with the knob "erase all memory" before flashing, which did not bring any betterment. Now that I am smarter (although I still do not know much about the MSP430 architecture) I can think that the said knob did erase the executable-code-memory but left the calibration-data-memory undeleted.

When noticing that the press-buttons also behaved erratically I was certain that I blew the professor to it's ancestors in the silicon heaven and ordered not one but two replacement MSP that were closing for a smile in ePay. Now I am glad to have two replacement professors and even glader I did *not* have to pry the old one out and resolder the new ones instead.

Tell me please: except the 60m extension and the need to recalibrate the whole, is there any "need.to.have" feature with the MTR_5er Version? I now have the version 3 flashed and this perfectly fits my bill.

By the way: I had all MTRs now on the bench and had the opportunity to test them all side by side. Hard to tell between MTR3Bd and MTR5Bd, they both behave very nicely, like one would expect from DDS-driven NE602-receivers with some decent but not overwhelming front-end filtering.

What happens with the MTR2Bander must be some kind of magic. Side-by-side with his younger brothers, sharing the same antenna and the same audio output, it runs in circles around the other two and can only be compared in means of receiver "audio comfort" to the older ATS Series or the old Sierra. I do not want to start fighting here on "which's the best", but I wanted to give my 2cents worth of feedback to the designer, lift my hat and say: well done for all, but the MTR2Bander remains my favorite. I also did some measuring confirming the listening, but although numbers are nice to have, listening on crowded, noisy bands might finally be the decisive argument, at least to my liking.

Yours friendly, Razvan DL2ARL

17630. Re: [AT_Sprint] Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-22 22:37:47 UTC
From: Mike Dooley
Topic: 17604 Message: 17630

Hi Shirley,
Yep I realized that just after hitting send ;)
Thanks!Mike

From: "Shirley Márquez Dúlcey mark@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: Tuesday, March 21, 2017 10:10 PM
Subject: Re: [AT_Sprint] Re: SODA POP band modules

  You can also use the 9V battery to power the Uno when it's not plugged into your PC, so long as your kit provides a 9V battery clip with a barrel connector to go into the matching socket on the Uno. The program is stored in flash memory on the ATMega328 chip so it works even if you disconnect.

On Tue, Mar 21, 2017 at 8:58 PM, Mike Dooley msdooley@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

  Doh... the board is powered by the USB connection from the PC... The 9 volt battery is for the experiments.
MikeN5BGZ

17631. Re: [AT_Sprint] Group Historian and Chronicist

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-22 22:48:11 UTC
From: Colin Tuckley
Topic: 17540 Message: 17631

On 22/03/17 22:11, dl2arl wrote:

> This is why I played with the knob "erase all memory" before flashing,
> which did not bring any betterment. Now that I am smarter (although I
> still do not know much about the MSP430 architecture) I can think that
> the said knob did erase the executable-code-memory but left the
> calibration-data-memory undeleted.

Correct, the chip has 5 eeprom memory areas, one big one for the code
and 4 small ones for user and calibration data.

Three of the small ones are used for the message memories and the last
one is used for the calibration data. This last one is "protected" and
you need to do special stuff to force it to be erased, and it's not a
good idea because the clock calibration is put in there when the chip is
made.

> Tell me please: except the 60m extension and the need to recalibrate the
> whole, is there any "need.to.have" feature with the MTR_5er Version? I
> now have the version 3 flashed and this perfectly fits my bill.

Version 3 has all the bugs fixed *except* the word spacing used in the
memory keyer is too big, making it sound slow.

The memory keyer spacing is fixed in the v4 code and v4 also has a way
for the user to tell which version of the code is in the chip (hold
TUNE-UP & TUNE-DOWN at power up).

V5 has 60m added.

73, Colin G8TMV

--
Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
Debian Developer | +44(0)7799 143369 | 0xFA0C410738C9D903

In case of fire, yell "FIRE!"

17632. Solder paste

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-23 17:39:27 UTC
From: Randy Moore
Topic: 4402 Message: 17632

I'm looking at the banggood.com website for solder paste in a syringe. Not sure what to order. Can someone suggest a part number?

73,
Randy, KS4L

17633. Re: [AT_Sprint] Solder paste

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-23 17:46:46 UTC
From: John Shadle
Topic: 4402 Message: 17633

Randy,
One syringe should be more than enough paste for the project.

http://kd5ssj.com/solderpaste

-john NE4U

On Thu, Mar 23, 2017 at 1:39 PM, Randy Moore wrmoore47@...
[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> I'm looking at the banggood.com website for solder paste in a syringe.
> Not sure what to order. Can someone suggest a part number?
>
> 73,
> Randy, KS4L
>
>

17634. RE: [AT_Sprint] Solder paste

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-23 18:27:41 UTC
From: <steve.kd1jv@...>
Topic: 4402 Message: 17634

I think they really only have one type. But it doesn’t come with a tip or plunger, so you also have to order those. Also check out ebay, I saw lots listed there. I’ve used the Kester EP256 paste, which comes from a US supplier so you don’t have to wait long to get it. If you search for “solder Paste” on ebay, it’s the 3 or 4th one down on the first page of hits. I also see lots of listings for lead free paste, I’ve never tried that stuff so can’t comment on how well it works. The Kester syringe will last for many projects.

Hobby Lobby has the 320 watt embossing hot air pencils.

I'm looking at the banggood.com website for solder paste in a syringe. Not sure what to order. Can someone suggest a part number?

73,
Randy, KS4L

17635. Re: [AT_Sprint] Solder paste

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-23 18:51:40 UTC
From: wb6kwt
Topic: 4402 Message: 17635

Go with the paste John recommended, about $7 shipped from the US. I've used this paste for a number of years and never had an issue.

Bob - wb6kwt

On 3/23/2017 11:27 AM, steve.kd1jv@... [AT_Sprint] wrote:
>
> I think they really only have one type. But it doesn’t come with a tip
> or plunger, so you also have to order those. Also check out ebay, I
> saw lots listed there. I’ve used the Kester EP256 paste, which comes
> from a US supplier so you don’t have to wait long to get it. If you
> search for “solder Paste” on ebay, it’s the 3 or 4^th one down on the
> first page of hits. I also see lots of listings for lead free paste,
> I’ve never tried that stuff so can’t comment on how well it works. The
> Kester syringe will last for many projects.
>
> Hobby Lobby has the 320 watt embossing hot air pencils.
>
> I'm looking at the banggood.com website for solder paste in a syringe.
> Not sure what to order. Can someone suggest a part number?
>
> 73,
>
> Randy, KS4L
>
>

17636. Re: [AT_Sprint] Solder paste

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-23 18:55:43 UTC
From: Shirley Márquez Dúlcey
Topic: 4402 Message: 17636

If you're just looking for the one tube and want it quickly, and you're happy to work with a product containing lead, ordering from KD5SSJ is the right thing to do. His price is very reasonable for a domestic source, and you get everything you need for a single project.

If you're really set on ordering from China, here are two listings for a suitable solder paste: one for a single tube, the second for two. These are also for 63/37 solder with lead:

http://www.banggood.com/XG-Z40-10cc-Syringe-Solder-Paste-Flux-Paste-Sn63Pb37-25-45um-p-973158.html
http://www.banggood.com/2Pcs-XG-40-10CC-BGA-Solder-Flux-Paste-Soldering-Tin-Cream-Sn63Pb37-p-950842.html

These are both for the same product. Right now the single tubes are on sale so the price per tube is actually lower, but normally the two pack is a better deal. Note that those include just the plastic tip shown in the pictures which is not as effective as a good metal one. If you want the metal tips you have to buy them separately; here's a listing with a good selection:

http://www.banggood.com/SMT-SMD-PCB-Solder-Paste-Adhesive-Glue-Liquid-Dispenser-p-909151.html

On Thu, Mar 23, 2017 at 1:39 PM, Randy Moore wrmoore47@...
[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> I'm looking at the banggood.com website for solder paste in a syringe.
> Not sure what to order. Can someone suggest a part number?
>
> 73,
> Randy, KS4L
>
>

17637. Re: [AT_Sprint] Solder paste

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-23 19:28:25 UTC
From: Dale Putnam
Topic: 4402 Message: 17637

Chip Quik has it at www.chipquik.com<http://www.chipquik.com>

reasonable, american made, and good quality, consistent from tube to tube (syringe)

Chip Quik<http://www.chipquik.com/>
www.chipquik.com
Your browser does not support the video tag. Chip Quik® has just launched a new line of solder paste products under the trade name: Chip Quik® Two Part Mix.

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of steve.kd1jv@...m [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Thursday, March 23, 2017 12:27 PM
To: Randy Moore wrmoore47@... [AT_Sprint]
Subject: RE: [AT_Sprint] Solder paste

I think they really only have one type. But it doesn’t come with a tip or plunger, so you also have to order those. Also check out ebay, I saw lots listed there. I’ve used the Kester EP256 paste, which comes from a US supplier so you don’t have to wait long to get it. If you search for “solder Paste” on ebay, it’s the 3 or 4th one down on the first page of hits. I also see lots of listings for lead free paste, I’ve never tried that stuff so can’t comment on how well it works. The Kester syringe will last for many projects.

Hobby Lobby has the 320 watt embossing hot air pencils.

I'm looking at the banggood.com website for solder paste in a syringe. Not sure what to order. Can someone suggest a part number?

73,
Randy, KS4L

17638. Re: [AT_Sprint] Solder paste

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-23 20:13:39 UTC
From: Randy Moore
Topic: 4402 Message: 17638

Thanks for all the input. I've decided to go with the KD5SSJ paste. I've used his paste successfully on all my previous KD1JV rigs, but the last time it was nearly impossible to get the paste out. But I noticed that KD5SSJ offers a larger needle, so I'll go with that.

73,
Randy, KS4L

> On Mar 23, 2017, at 2:28 PM, Dale Putnam daleputnam@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> Chip Quik has it at www.chipquik.com
> reasonable, american made, and good quality, consistent from tube to tube (syringe)
> Chip Quik
> www.chipquik.com
> Your browser does not support the video tag. Chip Quik® has just launched a new line of solder paste products under the trade name: Chip Quik® Two Part Mix.
>
>
> Have a great day,
> --... ...-- Dale - WC7S in Wy
>
> "Actions speak louder than words"
> 1856 - Abraham Lincoln
>
>
> From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
> Sent: Thursday, March 23, 2017 12:27 PM
> To: Randy Moore wrmoore47@... [AT_Sprint]
> Subject: RE: [AT_Sprint] Solder paste
>
>
> I think they really only have one type. But it doesn’t come with a tip or plunger, so you also have to order those. Also check out ebay, I saw lots listed there. I’ve used the Kester EP256 paste, which comes from a US supplier so you don’t have to wait long to get it. If you search for “solder Paste” on ebay, it’s the 3 or 4th one down on the first page of hits. I also see lots of listings for lead free paste, I’ve never tried that stuff so can’t comment on how well it works. The Kester syringe will last for many projects.
>
>
>
> Hobby Lobby has the 320 watt embossing hot air pencils.
>
>
>

> I'm looking at the banggood.com website for solder paste in a syringe. Not sure what to order. Can someone suggest a part number?
>
>
>
> 73,
>
> Randy, KS4L
>
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17639. Soda Pop can't do 6 meters.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-23 20:44:42 UTC
From: steve.kd1jv@...
Topic: 17639 Message: 17639

Well, that was disappointing. It's not a hardware issue, or if it is, can't find out. It seems 50,000,000.00 takes 1 bit more then the arithmetic can handle. Need 33 bits and the Auriuno with a MEGA chip will only do 32 bits. That limits the max frequency to 42 MHz and change. Apparently the Duo will handle 64 bit arithmetic, don't know off had which processor that board uses.

Steve KD1JV

17640. Soda Pop kit Arroved today

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-23 22:09:04 UTC
From: Hank Greeb
Topic: 17639 Message: 17640

Haven't opened the very nice package yet. But it arroved in 2-daze mail. I probably won't try building mine until the experiments of "plug in band modules" is complete. It would be fun to have a 160 meter thru 10 meter rig in a Wal-mart Box.

72/73 de n8xx Hg
QRP >99.44% of the time

17641. Re: [AT_Sprint] Soda Pop can't do 6 meters.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-23 22:28:28 UTC
From: Mike WA8BXN
Topic: 17639 Message: 17641

Hi Steve ---

Try data type long long. That should give you 64 bit integers on any Arduino board. For example:

long long freqBits;

Code generated will use library calls to do the computations (no extra library needed, its built in) assuming you are using the Arduino IDE and perhaps with others too.

73/72 - Mike WA8BXN

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Thursday, March 23, 2017 4:44 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Soda Pop can't do 6 meters.

Well, that was disappointing. It's not a hardware issue, or if it is, can't find out. It seems 50,000,000.00 takes 1 bit more then the arithmetic can handle. Need 33 bits and the Auriuno with a MEGA chip will only do 32 bits. That limits the max frequency to 42 MHz and change. Apparently the Duo will handle 64 bit arithmetic, don't know off had which processor that board uses.

Steve KD1JV

17642. Re: [AT_Sprint] Soda Pop kit Arroved today

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-23 22:42:51 UTC
From: Mike Dooley
Topic: 17639 Message: 17642

Mine arrived yesterday. Now to get the solder paste, the hobby lobby hot air thingie (technical term), and gather up my usual small tools. I have a couple other projects ahead of this one so it will be a couple of weeks before I get started.
Thanks, Steve.
Mike DooleyN5BGZ

From: "Hank Greeb n8xx@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: Thursday, March 23, 2017 5:09 PM
Subject: [AT_Sprint] Soda Pop kit Arroved today

  Haven't opened the very nice package yet. But it arroved in 2-daze mail. I probably won't try building mine until the experiments of "plug in band modules" is complete. It would be fun to have a 160 meter thru 10 meter rig in a Wal-mart Box.

72/73 de n8xx Hg
QRP >99.44% of the time

17643. Re: [AT_Sprint] Solder paste

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 00:06:03 UTC
From: Joe Street
Topic: 4402 Message: 17643

+1 on that. Chipquick. Good.

On Thu, Mar 23, 2017 at 3:28 PM, Dale Putnam daleputnam@...
[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Chip Quik has it at www.chipquik.com
>
> reasonable, american made, and good quality, consistent from tube to tube
> (syringe)
> Chip Quik <http://www.chipquik.com/>
> www.chipquik.com
> Your browser does not support the video tag. Chip Quik® has just launched
> a new line of solder paste products under the trade name: Chip Quik® Two
> Part Mix.
>
>
> Have a great day,
> --... ...-- Dale - WC7S in Wy
>
> "Actions speak louder than words"
> 1856 - Abraham Lincoln
>
>
> ------------------------------
> *From:* AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf
> of steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
> *Sent:* Thursday, March 23, 2017 12:27 PM
> *To:* Randy Moore wrmoore47@... [AT_Sprint]
> *Subject:* RE: [AT_Sprint] Solder paste
>
>
>
> I think they really only have one type. But it doesn’t come with a tip or
> plunger, so you also have to order those. Also check out ebay, I saw lots
> listed there. I’ve used the Kester EP256 paste, which comes from a US
> supplier so you don’t have to wait long to get it. If you search for
> “solder Paste” on ebay, it’s the 3 or 4th one down on the first page of
> hits. I also see lots of listings for lead free paste, I’ve never tried
> that stuff so can’t comment on how well it works. The Kester syringe will
> last for many projects.
>
>
>

> Hobby Lobby has the 320 watt embossing hot air pencils.
>
>
>
> I'm looking at the banggood.com website for solder paste in a syringe.
> Not sure what to order. Can someone suggest a part number?
>
>
>
> 73,
>
> Randy, KS4L
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>

17644. Finished my Soda Pop! No keying.. :-(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 00:51:36 UTC
From: Gil
Topic: 17644 Message: 17644

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Hello,

I received my kit this morning! Very well packaged and it got to France
very quickly, thanks again Steve!

It's 1:45AM here now... It took me all afternoon and evening to
complete. I didn't calibrate it yet, waiting for a small frequency
counter I ordered on Ebay. Everything seems to work, except...

After the calibration, which I sort of skipped, the radio went into
regular use mode and I heard a hiss. I had a dummy load connected and my
paddles. When clicking on the dit or dah paddle, nothing... The hiss
goes away for maybe half a second, but there is no tone. R29 is still
out. I didn't check if there was RF getting out. I can change frequency
with the encoded, all that works fine. Suggestions?

What kind of an oscilloscope do I need to do the calibration?

The case I plan on using is the Hammond 1590UFL, so I can put three
18650 cell in it.

If someone made a video of the calibration, now that would be awesome!

Gil.
-----BEGIN PGP SIGNATURE-----
Comment: Using GnuPG with Mozilla - http://enigmail.mozdev.org/

iEYEARECAAYFAljUbZgACgkQswHtsg9SqflUZgCcDxuYRaWT+jJTxsqsc+E1mCMu
lysAniLRwONMdf2bXJwVR6y8xq+Xk+lI
=NfVL
-----END PGP SIGNATURE-----
```

17645. RE: [AT_Sprint] Soda Pop can't do 6 meters.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 01:58:22 UTC
From: <steve.kd1jv@...>
Topic: 17639 Message: 17645

Wasn’t sure I could do that. Will give it a try. Thanks.
Steve

Hi Steve ---

Try data type long long. That should give you 64 bit integers on any Arduino board. For example:

long long freqBits;

Code generated will use library calls to do the computations (no extra library needed, its built in) assuming you are using the Arduino IDE and perhaps with others too.

73/72 - Mike WA8BXN

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Thursday, March 23, 2017 4:44 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Soda Pop can't do 6 meters.

Well, that was disappointing. It's not a hardware issue, or if it is, can't find out. It seems 50,000,000.00 takes 1 bit more then the arithmetic can handle. Need 33 bits and the Auriuno with a MEGA chip will only do 32 bits. That limits the max frequency to 42 MHz and change. Apparently the Duo will handle 64 bit arithmetic, don't know off had which processor that board uses.

Steve KD1JV

Posted by: Mike WA8BXN <hubby2k@...>

Yahoo Groups Links

17646. RE: [AT_Sprint] Finished my Soda Pop! No keying.. :-(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 02:05:31 UTC
From: <steve.kd1jv@...>
Topic: 17644 Message: 17646

All I can suggest is to check the connections to the parts associated with the side tone, which are all located below the volume control.

Any scope which can display audio frequencies will do. You could probably use the waterfall of a PSK app.

KD1JV

Hello,

I received my kit this morning! Very well packaged and it got to France very quickly, thanks again Steve!

It's 1:45AM here now... It took me all afternoon and evening to complete. I didn't calibrate it yet, waiting for a small frequency counter I ordered on Ebay. Everything seems to work, except...

After the calibration, which I sort of skipped, the radio went into regular use mode and I heard a hiss. I had a dummy load connected and my paddles. When clicking on the dit or dah paddle, nothing... The hiss goes away for maybe half a second, but there is no tone. R29 is still out. I didn't check if there was RF getting out. I can change frequency with the encoded, all that works fine. Suggestions?

What kind of an oscilloscope do I need to do the calibration?

The case I plan on using is the Hammond 1590UFL, so I can put three 18650 cell in it.

If someone made a video of the calibration, now that would be awesome!

Gil.

17647. Re: [AT_Sprint] Soda Pop can't do 6 meters.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 02:50:57 UTC
From: Steven Weber
Topic: 17639 Message: 17647

Thanks Mike, that worked. And so does the 6 meter SODA POP ! Sort of.

The reciever definately needs a preamp. It works, but only down to about -60 dBm, which is like 200 uV. But amazingly, the transmitter puts out a solid 4 watts and takes a couple of minutes for the BS170's to start to get to "maybe I should let the key up now" hot. And it has a remarkably clean spectrum. 2nd harmonic is -60 dBc. With a little work, maybe we'll have something here.

73, Steve KD1JV

Try data type long long. That should give you 64 bit integers on any Arduino board. For example:

long long freqBits;

73/72 - Mike WA8BXN

17648. Re: [AT_Sprint] Soda Pop can't do 6 meters.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 03:31:11 UTC
From: Hank Greeb
Topic: 17639 Message: 17648

Maybe a 160 through 6 meter rig, with plug in modules (if the plug in modules under consideration actually work out). All for under $200? Wow! that would be something GRRR8!

72/73 de n8xx Hg
QRP >99.44% of the time

On 3/23/2017 10:50 PM, 'Steven Weber' steve.kd1jv@... [AT_Sprint] wrote:
> With a little work, maybe we'll have
> something here.

17649. Question about the Soda Pop

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 03:37:17 UTC
From: Hank Greeb
Topic: 17639 Message: 17649

Will the Soda Pop run with 9 volts from 8 NiMH cells? I've been running my AT-Sprint series with that kind of power pack, with about 3 watts out, which works great for these. I do have a 3 cell LiPO pack, but it weighs considerably more than the rig.

72/73 de n8xx Hg
QRP >9.44% of the time

On 3/23/2017 10:50 PM, 'Steven Weber' steve.kd1jv@... [AT_Sprint] wrote:

> With a little work, maybe we'll have something here.

17650. Re: [AT_Sprint] Soda Pop can't do 6 meters.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 03:37:53 UTC
From: Shirley Márquez Dúlcey
Topic: 17639 Message: 17650

The Due uses an ARM processor. So does the Arduino Zero.

But as you already discovered, it's possible to do math with bigger numbers on the ATMega328, and it's already in the Arduino libraries. Having one or more unsigned long long (ULL) variables in your code links in a bit of extra library code, but it's already happening because the NT7S code uses them internally. If you were passing in an unsigned long the compiler was already casting it to unsigned long long - in other words, adding extra zeroes at the high order end.

The current version of the NT7S library has an example of generating 175 MHz. (The one you included with the SODA POP code is an older version.) And the code has been upgraded to generate frequencies up to 225 MHz, which is good news for people who want to make a 222 MHz rig or a QSD SDR (that's a quadrature sampling detector; it uses I/Q clocks which are usually created by starting at 4 times the intended LO and using dividers) for 6 meters.

But note that operation above 200 MHz is beyond the specifications of the chip. The original Si5351A was rated to 160 MHz; the updated Si5351A-B increases the limit to 200 MHz. (The part on my SODA POP board is the -B version; I had to drag out the high power magnifier to check. I think they're only selling the faster ones now.) The upper limit is not hard coded into the chips, so they can be pushed beyond their specified limits.

On Thu, Mar 23, 2017 at 4:44 PM, steve.kd1jv@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> Well, that was disappointing. It's not a hardware issue, or if it is,
> can't find out. It seems 50,000,000.00 takes 1 bit more then the arithmetic
> can handle. Need 33 bits and the Auriuno with a MEGA chip will only do 32
> bits. That limits the max frequency to 42 MHz and change. Apparently the
> Duo will handle 64 bit arithmetic, don't know off had which processor that
> board uses.
>
> Steve KD1JV
>
>
>
>

17651. Re: [AT_Sprint] Soda Pop can't do 6 meters.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 03:45:15 UTC
From: Shirley Márquez Dúlcey
Topic: 17639 Message: 17651

Technically, the data type used in the NT7S library is uint64_t, not unsigned long long. But they're the same thing on an Arduino. In any case, you should be using unsigned variables to interact with the library, not long long as WA8BXN suggested - using signed variables will force the compiler to do extra data conversions.

There are some changes to the API of the current NT7S code (which is version 2 of the library; the one you supply is version 1). Notably, you have to change the initialization code; the new version of the init function takes three arguments, not two. So it's not a drop-in replacement; some code changes are required. I'll give that a try after I build my kit (it arrived today) and try it out with the original code.

On Thu, Mar 23, 2017 at 11:31 PM, Hank Greeb n8xx@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
> Maybe a 160 through 6 meter rig, with plug in modules (if the plug in
> modules under consideration actually work out). All for under $200?
> Wow! that would be something GRRR8!
>
> 72/73 de n8xx Hg
> QRP >99.44% of the time
>
>
> On 3/23/2017 10:50 PM, 'Steven Weber' steve.kd1jv@... [AT_Sprint]
> wrote:
>> With a little work, maybe we'll have
>> something here.
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> Yahoo Groups Links
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17652. Re: [AT_Sprint] Question about the Soda Pop

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 03:56:56 UTC
From: Shirley Márquez Dúlcey
Topic: 17639 Message: 17652

He says "9-14 volts, 12 recommended". The main effect of lower voltage is lower output power. There may also be a reduction in receiver dynamic range because the mixer and post-mixer op amps are run at the input voltage, but you're not likely to notice unless you try out the rig in a contest. All the digital circuits are run from regulated 5v or 3.3v supplies, so the reduced voltage will have no effect on frequency stability.

The output voltage from your 8 cell NiMh pack dips as low as 8v at the end of its discharge curve, so you might find operation unsatisfactory at the tail end. That would reduce the effective capacity of your battery by 10-20% - somewhat less if you use Eneloop cells because they have a flatter discharge curve.

The transmitter circuitry is very similar to the design in the ATS-3 and later (the original ATS was a different design) and the MTR series, so they're all going to behave pretty much the same way when you reduce voltage. Steve has experimented with other parts of his designs, but he's stuck with the same transmitter for a while because it works. If it ain't broke, don't fix it!

On Thu, Mar 23, 2017 at 11:37 PM, Hank Greeb n8xx@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
> Will the Soda Pop run with 9 volts from 8 NiMH cells? I've been running
> my AT-Sprint series with that kind of power pack, with about 3 watts
> out, which works great for these. I do have a 3 cell LiPO pack, but it
> weighs considerably more than the rig.
>
> 72/73 de n8xx Hg
> QRP >9.44% of the time
>
> On 3/23/2017 10:50 PM, 'Steven Weber' steve.kd1jv@... [AT_Sprint]
> wrote:
>
>> With a little work, maybe we'll have something here.
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> Yahoo Groups Links

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17653. New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 09:30:59 UTC
From: AT_Sprint@yahoogroups.com
Topic: 1459 Message: 17653

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the AT_Sprint
group.

File : /LNR 3 band PSK31 mod/digi.bin
Uploaded by : drew_k9qv <twologsinabucket@...>
Description : Binary of firmware for PSK31 on LNR 3 bander. Dumped from my operating radio. I have not tried to upload this file to the radio.

You can access this file at the URL:
https://groups.yahoo.com/neo/groups/AT_Sprint/files/LNR%203%20band%20PSK31%20mod/digi.bin

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

drew_k9qv <twologsinabucket@...>

17654. New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 09:32:00 UTC
From: AT_Sprint@yahoogroups.com
Topic: 1459 Message: 17654

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the AT_Sprint
group.

File : /LNR 3 band PSK31 mod/asm.s43
Uploaded by : drew_k9qv <twologsinabucket@...>
Description : Source code for LNR MTR 3 bander modified to allow PSK31. Must be complied with IAR workbench or similar.

You can access this file at the URL:
https://groups.yahoo.com/neo/groups/AT_Sprint/files/LNR%203%20band%20PSK31%20mod/asm.s43

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

drew_k9qv <twologsinabucket@...>

17655. New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 09:35:28 UTC
From: AT_Sprint@yahoogroups.com
Topic: 1459 Message: 17655

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the AT_Sprint
group.

File : /LNR 3 band PSK31 mod/8thWattResistor.jpg
Uploaded by : drew_k9qv <twologsinabucket@...>
Description : Pullup resistor for paddle line to allow manchester encoding.

You can access this file at the URL:
https://groups.yahoo.com/neo/groups/AT_Sprint/files/LNR%203%20band%20PSK31%20mod/8thWattResistor.jpg

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

drew_k9qv <twologsinabucket@...>

17656. New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 09:36:04 UTC
From: AT_Sprint@yahoogroups.com
Topic: 1459 Message: 17656

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the AT_Sprint
group.

File : /LNR 3 band PSK31 mod/RigInOperation.jpg
Uploaded by : drew_k9qv <twologsinabucket@...>
Description : LNR MTR 3 bander receiving PSK31 on Treo 700w PPC phone.

You can access this file at the URL:
https://groups.yahoo.com/neo/groups/AT_Sprint/files/LNR%203%20band%20PSK31%20mod/RigInOperation.jpg

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

drew_k9qv <twologsinabucket@...>

17657. New file uploaded to AT_Sprint

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 09:36:39 UTC
From: AT_Sprint@yahoogroups.com
Topic: 1459 Message: 17657

Hello,

This email message is a notification to let you know that
a file has been uploaded to the Files area of the AT_Sprint
group.

File : /LNR 3 band PSK31 mod/Treo700wPSKinterface.jpg
Uploaded by : drew_k9qv <twologsinabucket@...>
Description : Interface schematic for Treo700w to MTR for PSK31

You can access this file at the URL:
https://groups.yahoo.com/neo/groups/AT_Sprint/files/LNR%203%20band%20PSK31%20mod/Treo700wP
SKinterface.jpg

To learn more about file sharing for your group, please visit:
https://help.yahoo.com/kb/index?page=content&y=PROD_GRPS&locale=en_US&id=SLN15398

Regards,

drew_k9qv <twologsinabucket@...>

17658. Re: [AT_Sprint] Finished my Soda Pop! No keying.. :-(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 10:34:17 UTC
From: Gil
Topic: 17644 Message: 17658

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Thank you, so around the encoder? It's probably a solder joint on a
transistor...

Gil.

steve.kd1jv@... [AT_Sprint] wrote:
> All I can suggest is to check the connections to the parts
> associated with the side tone, which are all located below the volume
> control.
-----BEGIN PGP SIGNATURE-----
Comment: Using GnuPG with Mozilla - http://enigmail.mozdev.org/

iEYEARECAAYFAljU9ikACgkQswHtsg9SqfkTLACg9rJzO/nFMf4irxa32WPIAVIk
zikAoNvRTmyayqkQn5y8++3Hh6TLq5u0
=45CX
-----END PGP SIGNATURE-----
```

17659. Re: [AT_Sprint] Question about the Soda Pop

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 11:21:34 UTC
From: Hank Greeb
Topic: 17639 Message: 17659

Thanks, Shirley:

You told me just what I needed to know.

I guess I'll try every one of my rigs with the 8 cell NiMH cell pack and see if I note any qualitative degradation of dynamic range for the receiver. I don't have capabilities for quantitative testing of this parameter, but I note by ear when large signals overload any of my receivers. For my typical uses, 3 watts is fine for power out, and, even though folks say I won't burn up the finals with up to 14 VDC.

72/73 de n8xx Hg
QRP >99.44% of the time

On 3/23/2017 11:56 PM, Shirley Márquez Dúlcey mark@...
[AT_Sprint] wrote:

> He says "9-14 volts, 12 recommended". The main effect of lower voltage
> is lower output power. There may also be a reduction in receiver
> dynamic range because the mixer and post-mixer op amps are run at the
> input voltage, but you're not likely to notice unless you try out the
> rig in a contest. All the digital circuits are run from regulated 5v
> or 3.3v supplies, so the reduced voltage will have no effect on
> frequency stability.
>
> The output voltage from your 8 cell NiMh pack dips as low as 8v at the
> end of its discharge curve, so you might find operation unsatisfactory
> at the tail end. That would reduce the effective capacity of your
> battery by 10-20% - somewhat less if you use Eneloop cells because
> they have a flatter discharge curve.
>
> The transmitter circuitry is very similar to the design in the ATS-3
> and later (the original ATS was a different design) and the MTR
> series, so they're all going to behave pretty much the same way when
> you reduce voltage. Steve has experimented with other parts of his
> designs, but he's stuck with the same transmitter for a while because
> it works. If it ain't broke, don't fix it!
>
>
> On Thu, Mar 23, 2017 at 11:37 PM, Hank Greeb n8xx@... [AT_Sprint]
> <AT_Sprint@yahoogroups.com> wrote:
>> Will the Soda Pop run with 9 volts from 8 NiMH cells? I've been running
>> my AT-Sprint series with that kind of power pack, with about 3 watts
>> out, which works great for these. I do have a 3 cell LiPO pack, but it
>> weighs considerably more than the rig.
>>

>> 72/73 de n8xx Hg
>> QRP >9.44% of the time
>>
>> On 3/23/2017 10:50 PM, 'Steven Weber' steve.kd1jv@... [AT_Sprint]
>> wrote:
>>
>>> With a little work, maybe we'll have something here.
>>
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>> Yahoo Groups Links
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> ------------------------------------
> Posted by: =?UTF-8?B?U2hpcmxleSBNw6FycXVleiBEw7psY2V5?= <mark@...>
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> Yahoo Groups Links
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17660. RE: [AT_Sprint] Digest Number 3086

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 09:38:23 UTC
From: twologsinabucket@...
Topic: 17613 Message: 17660

The firmware files for PSK31 on LNR MTR 3 bander have been posted.

Drew

17661. RE: [AT_Sprint] Digest Number 3086

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 13:01:22 UTC
From: va3rr@...
Topic: 17613 Message: 17661

Thanks Drew. I'm also interested in running PSK31 via my MTR3.

17662. Buttons for encoder and volume pot.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 16:14:05 UTC
From: Gil
Topic: 17662 Message: 17662

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Hello.

It would be great to have the reference for the encoder and volume pot
to order the correct size button (Soda Pop)... Thanks!

Gil.
AK4YH & F4WBY.
-----BEGIN PGP SIGNATURE-----
Comment: Using GnuPG with Mozilla - http://enigmail.mozdev.org/

iEYEARECAAYFAljVRc0ACgkQswHtsg9Sqfl7pgCgkNeNDW2XtCj8GWr+6fSGrJsU
c7YAn27BkZ92YHlO1R6+Egw3T0ynAqbg
=bJ6n
-----END PGP SIGNATURE-----
```

17663. RE: [AT_Sprint] Buttons for encoder and volume pot.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 16:54:33 UTC
From: <steve.kd1jv@...>
Topic: 17662 Message: 17663

The shafts are 9mm for both. A common 0.25” shaft knob works, but is tad off center since it’s 11 mills too big. I don’t bother with a knob on the volume control.

KD1JV

Hello.

It would be great to have the reference for the encoder and volume pot
to order the correct size button (Soda Pop)... Thanks!

Gil.
AK4YH & F4WBY.

17664. Re: [AT_Sprint] Buttons for encoder and volume pot.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 17:01:53 UTC
From: Gil
Topic: 17662 Message: 17664

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Thank you! I assume you meant 6mm.

Gil.

steve.kd1jv@... [AT_Sprint] wrote:
> The shafts are 9mm for both. A common 0.25” shaft knob works, but is
> tad off center since it’s 11 mills too big.
-----BEGIN PGP SIGNATURE-----
Comment: Using GnuPG with Mozilla - http://enigmail.mozdev.org/

iEYEARECAAYFAljVUQEACgkQswHtsg9SqfnJzACfWCMjaQD+hi1QLoiyUyCmomKK
bcAAoKuIRq9BAUdN0SxlDa8AC9XUV7/O
=z7G/
-----END PGP SIGNATURE-----
```

17665. Soda Pop received

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 18:01:20 UTC
From: Randy Moore
Topic: 17665 Message: 17665

Small package in today's mail. Now to wait for my solder paste.

Thanks Steve!

73,
Randy, KS4L

17666. Looking for an experienced kit builder

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 22:47:08 UTC
From: wrbeaton@...
Topic: 17666 Message: 17666

I was the lucky winner of a 3 band Mountain Topper Version 2. I had every intention of building the kit myself, but when it arrived today I began to seriously doubt my aging skills! I have never done any surface mount soldering and never had to deal with what looks like microscopic parts! So, I am looking for an experienced kit builder who would like to accept the challenge of building the kit for me, for a fee. If this sounds like something you'd be interested in, please email me at my QRZ address.

Thanks, Walt NE4TN

17667. Re: Looking for an experienced kit builder

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-24 23:30:39 UTC
From: mikell@...
Topic: 17666 Message: 17667

Email sent

73
NE5U

17668. Re: [AT_Sprint] Any Spare PCB's going/Not wanted ???

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 00:26:10 UTC
From: Dennis Anderson
Topic: 17639 Message: 17668

I know I missed the boat on this, but just on the off chance I thought I'd ask.
Are there any spare PCB's - not bothered about components.
Thanks for the possible help
Dennis G6YBC

| Reply via web post | • | Reply to sender | • | Reply to group | • | Start a New Topic | • | Messages in this topic (6) |

Have you tried the highest rated email app? With 4.5 stars in iTunes, the Yahoo Mail app is the highest rated email app on the market. What are you waiting for? Now you can access all your inboxes (Gmail, Outlook, AOL and more) in one place. Never delete an email again with 1000GB of free cloud storage. Visit Your Group
- New Members 4
• Privacy • Unsubscribe • Terms of Use
.

17669. SODA POP w/plug in modules?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 00:53:18 UTC
From: Hank Greeb
Topic: 17639 Message: 17669

A few daze back there was much talk about making plug in band modules for this new, very cute, "Soda Pop" transceiver.

I haven't seen much about it since then.

Is the idea still feasible? If so, I'll wait instead of building. If Not..... well..... my dashes will be hoped, but since I ain't technically nor physically inclined, I'll accept the verdict of the experts.

72/73 de n8xx Hg
QRP >99.44% of the time

17670. RE: [AT_Sprint] Digest Number 3086

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 01:00:40 UTC
From: twologsinabucket@...
Topic: 17613 Message: 17670

You're welcome. Let me know if it works for you (or doesn't).

Drew

17671. Re: SODA POP w/plug in modules?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 07:50:55 UTC
From: pd7lol@...
Topic: 17639 Message: 17671

I am still determined to make plug in modules. From the print layout I think it should very well be possible. I have not received my kit yet, so I'm not entirely sure how yet and will decide when I see the board. But I'll post my experiences and some photos when I'm done.

73,
Camil, PD7LOL

17672. SodaPop Wanted

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 12:59:58 UTC
From: W3DX@...
Topic: 17672 Message: 17672

Hi Guys-

I missed out on the SodaPop. If you have one that you'd like to sell, I'll pay $125 plus $10 shipping. Payment via PayPal.

If interested, please send me a message offline. Thanks.

73,

Rob, W3DX

17673. Re: SodaPop Wanted

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 14:11:42 UTC
From: W3DX@...
Topic: 17672 Message: 17673

Thanks, guys. I snagged one. W3DX

17674. Re: [AT_Sprint] Re: SodaPop Wanted

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 14:15:00 UTC
From: Dennis Anderson
Topic: 17672 Message: 17674

Hi all,
Still after a PCB, but if a part or full kit is available will consider that as well.
Thanks for the help
Dennis G6YBC

From: "W3DX@aol.com [AT_Sprint]" <AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: Saturday, 25 March 2017, 14:11
Subject: [AT_Sprint] Re: SodaPop Wanted

  Thanks, guys. I snagged one. W3DX

17675. SODA Pop arrived

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 15:49:37 UTC
From: Dennis Shubitowski
Topic: 17675 Message: 17675

#84 arrived in excellent shape with fine packaging. Thanks so much for doing these kits Steve. My son and I are looking forward to building it.

73 -
Dennis NS8H

17676. RE: [AT_Sprint] Re: SodaPop Wanted

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 16:26:04 UTC
From: <steve.kd1jv@...>
Topic: 17672 Message: 17676

I always buy the major bits is qualities of 100, so when it’s all said and done, there are no spares. Sorry.
Steve KD1JV

Hi all,

Still after a PCB, but if a part or full kit is available will consider that as well.

Thanks for the help

Dennis G6YBC

17677. Re: [AT_Sprint] Re: SodaPop Wanted

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 16:32:29 UTC
From: Dennis Anderson
Topic: 17672 Message: 17677

Thanks Steve,
I know it was a long shot, but as they say if you don't ask you may not get etc.
Best regards
Dennis G6YBC

From: "steve.kd1jv@gmail.com [AT_Sprint]" <AT_Sprint@yahoogroups.com>
To: "Dennis Anderson g6ybc@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>
Sent: Saturday, 25 March 2017, 16:26
Subject: RE: [AT_Sprint] Re: SodaPop Wanted

I always buy the major bits is qualities of 100, so when it’s all said and done, there are no spares. Sorry.Steve KD1JV Hi all, Still after a PCB, but if a part or full kit is available will consider that as well. Thanks for the help Dennis G6YBC

17678. fotos 4 soda pop builders

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 17:57:18 UTC
From: ohwenzelph@...
Topic: 17678 Message: 17678

Posted 4 photos of the generic smd parts on the bottom of the board in the photos section under album "SodaPop" When the picture is small, if you click on the 'down arrow into a box' then you get a version that you can zoom in on.

Q's

Yellow MMBT3906 : 2A
Blue MMBT2222A : 1P
Green MMBF4416 : 6A
Red 2N7002. : L WW

Not as cool as N1RX's stuffed "Sin Gel" board under album "Soda Pop" but maybe a help to someone.
(if I didn't screw up)

73

Jerry aa1of

17679. Soda Pop - Paste vs No-Paste

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 14:32:53 UTC
From: justsoddy@...
Topic: 17679 Message: 17679

Hi,

I'm new to SMT. I get it that using paste would be faster for many people. I'm new to this, so either approach will be slow going for me. Is there any other serious advantage of using paste on Soda Pop? If time is the only issue, I'd rather just go with soldering SMT using the iron.

Thoughts?

Walt
KE4QOH

17680. Re: Soda Pop - Paste vs No-Paste

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 18:21:12 UTC
From: n1rx@...
Topic: 17679 Message: 17680

Walt,
I would just go with the iron. I have done many of Steve's SMT kits without paste.
GL,
Bruce N1RX

17681. Fwd: Singel soda pop

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 18:26:09 UTC
From: ohwenzelph@...
Topic: 17681 Message: 17681

Sent from my iPad

Begin forwarded message:

> From: ohwenzelph@...
> Date: March 25, 2017 at 2:09:58 PM EDT
> To: "bedford@... Bedford " <bedford@...>
> Subject: Singel soda pop
>
> Hi Bruce,
> Did you have enough parts in your junk box to stuff the extra board or did you order a bunch of stuff from mouser or digikey?
> If you did order all or most of the parts do you have a file you could share of the order?
> Tnx
> Jerry Terres AA1OF
>
> Sent from my iPad

17682. Re: [AT_Sprint] Re: Soda Pop - Paste vs No-Paste

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 18:54:49 UTC
From: Shirley Márquez Dúlcey
Topic: 17679 Message: 17682

Paste can produce a neater looking result and it's somewhat faster if you have experience with it. But the radio will work equally well either way. Build it however you are comfortable doing it.

Unless you're really careful you'll have to do the handful of SMD parts on the other side of the board by hand anyway. It can be done with careful use of a heat gun, but you have to make sure not to get the other side of the board hot enough to make parts come loose. (Using a reflow oven is clearly right out!) A fancier option would be to use low temperature bismuth-based solder just for those parts, but that would require buying a second tube of solder paste. (The low temperature paste melts at 138C, compared to 183C for 63/37 or 217C for tin-silver-copper lead free paste.)

On Sat, Mar 25, 2017 at 2:21 PM, n1rx@comcast.net [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Walt,
>
> I would just go with the iron. I have done many of Steve's SMT kits
> without paste.
>
> GL,
>
> Bruce N1RX
>
>
>

17683. Re: Looking for an experienced kit builder

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 13:07:32 UTC
From: wrbeaton@...
Topic: 17666 Message: 17683

I would like to thank everyone who responded to my request for a kit builder! I have found that someone in the group that I was acquainted with is an experienced builder and will be taking on the task.

Again thanks for all the very generous offers! I was truly overwhelmed by the responses!!

73, Walt NE4TN

17684. Re: Soda Pop - Paste vs No-Paste

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-25 21:50:36 UTC
From: pd7lol@...
Topic: 17679 Message: 17684

I had never worked with SMT either, and started to solder my kit which arrived today. So far it seems to work out fine.

A friend of mine helped me. We set up the stand of a dremel with instead of the drill the plastic casing of a ballpoint with inside a wooden skewer (and the spring). This can hold the component while soldering it - the poor man's third hand. Then we just positioned the part with a pair of tweezers (though probably this can be done with skewers as well). A good magnifying glass (10+x) is helpful, but I did not find it necessary so far.

73,
Camil, PD7LOL

17685. Re: SODA POP w/plug in modules?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-26 05:44:34 UTC
From: vk3byd@...
Topic: 17639 Message: 17685

I am also keen to look at band modules, but like Camil, until I see the rig it will be hard to see how best to do it.

But given the seeming low interest, it may be a case of home brewing a band module rather than a PCB being design and a group buy happening.

73,
Warren vk3byd

17686. Anyone willing to elmer me on a kit build in Oklahoma City or nearby?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-26 07:14:53 UTC
From: kieran2230@...
Topic: 17686 Message: 17686

I didn't know if there was anyone in the OKC area. I have a kit I would like to build. I guess otherwise I might need a kit builder.

17687. Re: [AT_Sprint] Re: SODA POP w/plug in modules?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-26 12:00:10 UTC
From: Randy Moore
Topic: 17639 Message: 17687

I'd like to express an interest in band modules!

Randy, KS4L

> On Mar 26, 2017, at 12:44 AM, vk3byd@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> I am also keen to look at band modules, but like Camil, until I see the rig it will be hard to see how best to do it.
>
> But given the seeming low interest, it may be a case of home brewing a band module rather than a PCB being design and a group buy happening.
>
> 73,
> Warren vk3byd
>
>
>

17688. Re: [AT_Sprint] Re: SODA POP w/plug in modules?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-26 14:36:10 UTC
From: MOB
Topic: 17639 Message: 17688

I'm also interested in band modules and look forward to seeing what
folks come up with.

72,
Michael KD4SGN

On 3/26/2017 1:44 AM, vk3byd@... [AT_Sprint] wrote:
>
>
> I am also keen to look at band modules, but like Camil, until I see
> the rig it will be hard to see how best to do it.
>
> But given the seeming low interest, it may be a case of home brewing a
> band module rather than a PCB being design and a group buy happening.
>
> 73,
> Warren vk3byd
>
> _

17689. Re: [AT_Sprint] fotos 4 soda pop builders

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-26 16:34:44 UTC
From: Steve Saslow
Topic: 17678 Message: 17689

need help to navigate your reference! too much is being assumed that I know how to do it...sorry!

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of ohwenzelph@...m [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Saturday, March 25, 2017 5:57 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] fotos 4 soda pop builders

Posted 4 photos of the generic smd parts on the bottom of the board in the photos section under album "SodaPop" When the picture is small, if you click on the 'down arrow into a box' then you get a version that you can zoom in on.

Q's

Yellow MMBT3906 : 2A

Blue MMBT2222A : 1P

Green MMBF4416 : 6A

Red 2N7002. : L WW

Not as cool as N1RX's stuffed "Sin Gel" board under album "Soda Pop" but maybe a help to someone.

(if I didn't screw up)

73

Jerry aa1of

17690. SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-26 20:36:55 UTC
From: pd7lol@...
Topic: 17604 Message: 17690

So I finished most of the rig now. I only left out some plugs, because I'm not sure yet if I will mount them on the case or on the board. That gave me a better idea of the options for band modules.

The places for L8 and L7 allow for two 2-pin headers. At CT1 and CT2, two 3-pin headers (with the middle pin removed) can be placed. If you then short L3, all the band specific parts can be moved to the plug-in board:

TX: C2, C3, C5 (and C6), C12, L7, L8

RX: L3, CT1, C31, CT2, L4

C31 is also on the module, even though it is not band specific.

I have not yet had the possibility to make the module PCB and test it. I did make a simple PCB without any components to see how stable the headers were. It feels a little fragile but with some care it is easily usable.

I also made a PCB design. I'm not too familiar with these tools or designing PCBs, so there surely is room for improvement. Feedback is very welcome. The files are here:
https://github.com/camilstaps/SODA-POP-band-module.
https://github.com/camilstaps/SODA-POP-band-module

Unfortunately, a rectangular band module covers the ON/OFF switch. I don't think I'm going to include this switch in my set in the end and just power it on and off by connecting and disconnecting the battery. An other option is to mount the switch on the case. Yet another option is to make an L-shaped module by moving some of the parts to the backside.

There actually is room for a DB9 connector, either horizontally or vertically, somewhere around L8 and L7. If the connector were mounted on the case and simple wires would connect to the main board, this could give more stability. The connector would rest on the main board, so that should be very robust.

I have also played with the idea to add band detection to the software in a similar way as in the ATS. (There, every band module has a resistor which is somehow connected to an analog input on the controller, and on start-up the voltage measured on that input determines the band). The controller in the SODA POP uses all lines except RST. RST can be used as an input (but probably not an analog one). However, it should be possible to move one of the paddle inputs to RST, and use the other input for band selection. That is really something for v2.0 though.

I don't know if these longer traces will cause problems with higher frequencies. I have a homebuilt rig with even longer traces and that behaves absolutely fine on 20m, so I don't expect any problems. I might make a module for 10m later and try that. I'm not going to try 6m, because for the time being I don't have a license for that band. Same for anything above 40m, so for now I'm not going to try to fit toroids larger than T30-2 (needed for 60m and above) on these modules.

Anyway. These are my thoughts so far on band modules. It will take a week or so until I will have the first module ready, but wanted to share these PCB files so that they may be used by faster builders.

73,
Camil, PD7LOL

17691. RE: [AT_Sprint] fotos 4 soda pop builders

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-26 22:25:08 UTC
From: <steve.kd1jv@...>
Topic: 17678 Message: 17691
Attachments: 1 described; binary payloads are missing from this source WARC

Jerry was just listing the numbers marked on the parts, which I didn’t include since I couldn’t see them! Also, sometimes these markings can change depending on who made them or when they were made, so having that info in the manual can cause confusion later on with future kits runs. Just stick with the color coding any you can’t go wrong, but if the sticker comes off, the use the list below to figure out what part it is, if you can read the printing on the part.

Steve KD1JV

need help to navigate your reference! too much is being assumed that I know how to do it...sorry!

Posted 4 photos of the generic smd parts on the bottom of the board in the photos section under album "SodaPop" When the picture is small, if you click on the 'down arrow into a box' then you get a version that you can zoom in on.

Q's

Yellow MMBT3906 : 2A
Blue MMBT2222A : 1P
Green MMBF4416 : 6A
Red 2N7002. : L WW

Not as cool as N1RX's stuffed "Sin Gel" board under album "Soda Pop" but maybe a help to someone.
(if I didn't screw up)

73

Jerry aa1of

17692. Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-26 23:46:40 UTC
From: vk3byd@...
Topic: 17604 Message: 17692

Camil,
Thanks for sharing your work to date.

Would it help to have a foot on the band module PCB to provide greater support? Maybe use a plastic stand-off (or two) screwed to the bottom of the band PCB which would rest on the surface of the main PCB.

Can I suggest;
Adding a second set of pads for C5, this will allow for 60m and up which uses two Cap’s
Also on the 60m and up topic, would adding a second hole for L7 and L8 outside of the toroid, in parallel with the one on the centre help with the bigger toroids?
On the silk screen adding a white rectangle to write what band the module is.

Thanks again for you efforts to date,
73,
Warren vk3byd

17693. Re: SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-27 00:51:55 UTC
From: david@...
Topic: 17604 Message: 17693

Camil,

My thanks also for your work to date. I agree with Warren's suggestions. A useful tip for Eagle: if you "smash" the components on the PCB layout, you can move the part number text to better locations.

Noting Steve's recent tests on 6m, it is intriguing to think about adding a filter for this band. With the plug in filter module, it wouldn't be hard to add a preamp onto the module using a PGA103+. This is a very small SMT part and with 2 capacitors, a small choke and a +3.3V lead, you can get +26dB gain on 6m. These components could all fit on the underside of the board I think. Only tricky bit would be getting the +3.3V on a plug in basis.

I realise this is probably beyond your interests at present, but perhaps someone else will have a go. If no one else does so, I may try it, but it will be quite a few weeks before I have time to work on this (I'm also still awaiting my kit to arrive, so also want to look at the board a bit first).

73

David
VK3IL

17694. Re: [AT_Sprint] SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-27 01:12:55 UTC
From: Hank Greeb
Topic: 17604 Message: 17694

End game for me:

Would be either a mass order for the boards, or for boards with complete complement of components and details instructions to build a set of modules for 160/80/40/30/20/17/15/10 (and include 60 and 6 meters if so inclined).

It would be nice to have an eight or ten band CW rig for less than $200, maybe even less than $150. (you see, I have no conception of prices.)

72/73 de n8xx Hg
QRP >99.44% of the time

On 3/26/2017 4:36 PM, pd7lol@... [AT_Sprint] wrote:

So I finished most of the rig now. I only left out some plugs, because I'm not sure yet if I will mount them on the case or on the board. That gave me a better idea of the options for band modules.

The places for L8 and L7 allow for two 2-pin headers. At CT1 and CT2, two 3-pin headers (with the middle pin removed) can be placed. If you then short L3, all the band specific parts can be moved to the plug-in board:

TX: C2, C3, C5 (and C6), C12, L7, L8
RX: L3, CT1, C31, CT2, L4
C31 is also on the module, even though it is not band specific.

I have not yet had the possibility to make the module PCB and test it. I did make a simple PCB without any components to see how stable the headers were. It feels a little fragile but with some care it is easily usable.

I also made a PCB design. I'm not too familiar with these tools or designing PCBs, so there surely is room for improvement. Feedback is very welcome. The files are here: https://github.com/camilstaps/SODA-POP-band-module.

Unfortunately, a rectangular band module covers the ON/OFF switch. I don't think I'm going to include this switch in my set in the end and just power it on and off by connecting and disconnecting the battery! . An other option is to mount the switch on the case. Yet another option is to make an L-shaped module by moving some of the parts to the backside.

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used as an input (but probably not an analog one). However, it should be possible to move one of the paddle inputs to RST, and use the other input for band selection. That is really something for v2.0 though.

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Anyway. These are my thoughts so far on band modules. It will take a week or so until I will have the first module ready, but wanted to share these PCB files so that they may be used by faster builders.

73,

Camil, PD7LOL

17695. Re: [AT_Sprint] Re: SODA POP w/plug in modules?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-27 12:54:42 UTC
From: Anthony DeStefano
Topic: 17639 Message: 17695

Instead of a group buy why not design the PCB and upload it to OSH Park (https://oshpark.com/)? Then who ever wants to build them can just order it themselves. You get three boards for $5 per square inch. Plugin filters with SMT components should be small boards so for a couple bucks each you'll be able to build 3 different band modules.

-A

--

Anthony DeStefano

adx@...

On Sun, Mar 26, 2017, at 01:44 AM, vk3byd@telstra.com [AT_Sprint] wrote:
>

> I am also keen to look at band modules, but like Camil, until I see
> the rig it will be hard to see how best to do it.
>

> But given the seeming low interest, it may be a case of home brewing a
> band module rather than a PCB being design and a group buy happening.
>

> 73,

> Warren vk3byd

>

Links:

1. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/messages/17685;_ylc=X3oDMTJydXBxb2s0BF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxNzY4NQRzZWMDZnRyBHNsawNycGx5BHN0aW1lAzE0OTA1MDcwNzU-?act=reply&messageNum=17685
2. mailto:vk3byd@...?subject=Re%3A%20SODA%20POP%20w%2Fplug%2-0in%20modules%3F
3. mailto:AT_Sprint@yahoogroups.com?subject=Re%3A%20SODA%20POP%20w%2-Fplug%20in%20modules%3F
4. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/newtopic;_ylc=X3oDMTJmaWM3dmlmBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDZnRyBHNsawNudHBjBHN0aW1lAzE0OTA1MDcwNzU-
5. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/topics/17639;_ylc=X3oDMTM3bG9hM2g3BF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxNzY4NQRzZWMDZnRyBHNsawN2dHBjBHN0aW1lAzE0OTA1MDcwNzUEdHBjSWQDMTc2Mzk-
6. https://yho.com/1wwmgg
7. https://groups.yahoo.com/neo/groups/AT_Sprint/info;_ylc=X3oDMTJmbmw3bmwzBF9TAzk3MzU5NzE

0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2Z2hwBHN0aW1lAzE0OTA1MDcwNzU-
8. https://groups.yahoo.com/neo/groups/AT_Sprint/members/all;_ylc=X3oDMTJncWMzNTAyBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2bWJycwRzdGltZQMxNDkwNTA3MDc1
9. https://groups.yahoo.com/neo/groups/AT_Sprint/photos/photostream;_ylc=X3oDMTJnZnEza3UzBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2cGhvdARzdGltZQMxNDkwNTA3MDc1
10. https://info.yahoo.com/privacy/us/yahoo/groups/details.html
11. mailto:AT_Sprint-unsubscribe@yahoogroups.com?subject=Unsubscribe
12. https://info.yahoo.com/legal/us/yahoo/utos/terms/

17696. Re: [AT_Sprint] Re: SODA POP w/plug in modules?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-27 13:52:35 UTC
From: MOB
Topic: 17639 Message: 17696

This is an excellent idea that would put every builder in control of the delivery of their own boards. I've had good service at a very reasonable price from OSH Park on several projects.

Best regards,
Michael KD4SGN

On 3/27/2017 8:54 AM, Anthony DeStefano adx@... [AT_Sprint] wrote:
>
>
> Instead of a group buy why not design the PCB and upload it to OSH
> Park (https://oshpark.com/)? Then who ever wants to build them can
> just order it themselves. You get three boards for $5 per square inch.
> Plugin filters with SMT components should be small boards so for a
> couple bucks each you'll be able to build 3 different band modules.
>
> -A
>
> --
> Anthony DeStefano
> adx@...
>
>
> On Sun, Mar 26, 2017, at 01:44 AM, vk3byd@...
> <mailto:vk3byd@...> [AT_Sprint] wrote:
>>
>> I am also keen to look at band modules, but like Camil, until I see
>> the rig it will be hard to see how best to do it.
>>
>> But given the seeming low interest, it may be a case of home brewing
>> a band module rather than a PCB being design and a group buy happening.
>>
>> 73,
>> Warren vk3byd
>>
>
>
>
>

17697. Re: [AT_Sprint] Re: SODA POP w/plug in modules?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-27 14:49:15 UTC
From: Hank Greeb
Topic: 17639 Message: 17697

Yep, I think this is a good idea! I'd buy at least enough for 9 modules, 160/80/40/30/20/17/15/12/10 and since the consensus is buy enough for sets of 3, might as well include 60 & 6 meters.

72/73 de n8xx Hg
QRP >99.44% of the time

On 3/27/2017 9:52 AM, MOB mob@... [AT_Sprint] wrote:

17698. Re: [AT_Sprint] Re: SODA POP w/plug in modules?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-27 16:16:05 UTC
From: Lincoln Thormahlen
Topic: 17639 Message: 17698

I like this idea a lot. Would make the Soda Pop radio more versatile and if you lose a band module, you can replace it.

I would even like for the previous band module boards from the ATS series to be made available this way, as at this point, I am nervous about take the modules out in the wild for fear of losing a board and thereby permanently losing a band.
LincolnN9IN

On Monday, March 27, 2017 9:39 AM, "Anthony DeStefano adx@fastmail.fm [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:

  Instead of a group buy why not design the PCB and upload it to OSH Park (https://oshpark.com/)? Then who ever wants to build them can just order it themselves. You get three boards for $5 per square inch. Plugin filters with SMT components should be small boards so for a couple bucks each you'll be able to build 3 different band modules.

-A
--
Anthony DeStefano
adx@...

On Sun, Mar 26, 2017, at 01:44 AM, vk3byd@... [AT_Sprint] wrote:

I am also keen to look at band modules, but like Camil, until I see the rig it will be hard to see how best to do it.

But given the seeming low interest, it may be a case of home brewing a band module rather than a PCB being design and a group buy happening.

73,
Warren vk3byd

17699. Re: [AT_Sprint] Re: SODA POP w/plug in modules?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-27 18:07:57 UTC
From: Hank Greeb
Topic: 17639 Message: 17699

That's a good thought. I currently have one AT Series rig which has one band module which has a flaw in it so when I need that band I'll use another ATS series rig. I have two other of these type rigs, each of which could develop some flaw because of mishandling or just wearing out.

I was wondering from time to time how difficult it might be to have someone replicate the boards if I were to take all the components off a board and ask someone in the PCB buzines to make copies. I haven't done that, partly because of lethargy and partly because I'm not conversant with laws concerning copying of proprietary knowledge presented in this manner. But, it would be nice to have this capability.

If the bare boards were available (FAR Circuits or another reputable outfit, for example) I'd have a spare set of modules for each of my rigs which use these kind of modules. Say each board cost $10, that would be good insurance against loss or destruction by the (bumblebrained, careless) operator who usually uses the rigs. (That's the fellow who holds the station license for N8XX).

I LOVE the concept of a very small rig, of great versatility, such as the AT-Sprit series. I can see why folks who take these rigs to tops of mountains, or other rather inaccessible places like the idea of a somewhat larger and heavier rig with switched band modules, but, for me, at my age and dwindling physical prowess, this is not a consideration.

Note that this is in no way a criticism of Steve, KD1JV, or the GRRR8 rigs he designs. It is more of a critique of how the LID who owns the all N8XX is prone to screwing up even the great rigs designed by Steve!

Hanging my head in shame....

72/73 de n8xx Hg
QRP >999.44% of the time

On 3/27/2017 12:16 PM, Lincoln Thormahlen tlcfarmer@...
[AT_Sprint] wrote:

> I would even like for the previous band module boards from the ATS
> series to be made available this way, as at this point, I am nervous
> about take the modules out in the wild for fear of losing a board and
> thereby permanently losing a band.

17700. Re: [AT_Sprint] Re: SODA POP w/plug in modules?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-27 19:28:35 UTC
From: Anthony DeStefano
Topic: 17639 Message: 17700

You could go one step further and make them semi-kits by also having shared projects from the electronic houses that support them like Mouser. So all someone would need to do is order a set of boards from OSH Park and then order the shared list and they'd have a "kit" show up on their doorstep without anyone needing to do bulk orders or packing up parts.

-A

--

Anthony DeStefano

adx@...

On Mon, Mar 27, 2017, at 12:16 PM, Lincoln Thormahlen tlcfarmer@... [AT_Sprint] wrote:
>

>

> I like this idea a lot. Would make the Soda Pop radio more versatile
> and if you lose a band module, you can replace it.
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> Lincoln

> N9IN

>

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> Anthony DeStefano

> adx@...

>

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Links:

1. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/messages/17698;_ylc=X3oDMTJyN2hrdTAxBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxNzY5OARzZWMDZnRyBHNsawNycGx5BHN0aW1lAzE0OTA2MzE0Njg-?act=reply&messageNum=17698
2. mailto:tlcfarmer@...?subject=Re%3A%20%5BAT_Sprint%5D%20Re%3-A%20SODA%20POP%20w%2Fplug%20in%20modules%3F
3. mailto:AT_Sprint@yahoogroups.com?subject=Re%3A%20%5BAT_Sprint%5D%-20Re%3A%20SODA%20POP%20w%2Fplug%20in%20modules%3F
4. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/newtopic;_ylc=X3oDMTJmdWoxbWZvBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDZnRyBHNsawNudHBjBHN0aW1lAzE0OTA2MzE0Njg-
5. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/topics/17639;_ylc=X3oDMTM3NGdtbmZvBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxNzY5OARzZWMDZnRyBHNsawN2dHBjBHN0aW1lAzE0OTA2MzE0NjgEdHBjSWQDMTc2Mzk-
6. https://yho.com/1wwmgg
7. https://groups.yahoo.com/neo/groups/AT_Sprint/info;_ylc=X3oDMTJmNW5wYWU5BF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2Z2hwBHN0aW1lAzE0OTA2MzE0Njg-
8. https://groups.yahoo.com/neo/groups/AT_Sprint/members/all;_ylc=X3oDMTJnMTEzZjY2BF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2bWJycwRzdGltZQMxNDkwNjMxNDY4
9. https://groups.yahoo.com/neo/groups/AT_Sprint/photos/photostream;_ylc=X3oDMTJnZmd0cDM2BF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2cGhvdARzdGltZQMxNDkwNjMxNDY4
10. https://info.yahoo.com/privacy/us/yahoo/groups/details.html
11. mailto:AT_Sprint-unsubscribe@yahoogroups.com?subject=Unsubscribe
12. https://info.yahoo.com/legal/us/yahoo/utos/terms/

17701. Re: [AT_Sprint] SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-27 19:45:02 UTC
From: pd7lol@...
Topic: 17604 Message: 17701

Thanks a lot for all the detailed feedback!

David,

> A useful tip for Eagle: if you "smash" the components on the PCB layout, you can move the part number text to better locations.

Thanks a lot, this has been done.

> Noting Steve's recent tests on 6m, it is intriguing to think about adding a filter for this band. With the plug in filter module, it wouldn't be hard to add a preamp onto the module using a PGA103+. This is a very small SMT part and with 2 capacitors, a small choke and a +3.3V lead, you can get +26dB gain on 6m. These components could all fit on the underside of the board I think. Only tricky bit would be getting the +3.3V on a plug in basis.

This may fit well into my idea to make a SMT version using a DB9 connector, see below.

Warren,

> Would it help to have a foot on the band module PCB to provide greater support? Maybe use a plastic stand-off (or two) screwed to the bottom of the band PCB which would rest on the surface of the main PCB.

I don't think so. When the module is plugged in, it seems alright (when used considerately). It's just that for taking it out again 'wiggle' (excuse my English) it a bit and I'm not sure how long the headers will last.

Rethinking this, I may try to get the module on a DB9 connector. When the module PCB is put between the two rows of pins, one side can be used for the toroids and the other for the trimmer caps. The other components would be SMT. This would make the PCB smaller (cheaper), although it would also make the module fatter. Main objective would be to make the connector more stable. Whether this is an option for others of course depends on their casing. I plan to make a case from unused PCB, so making a hole for the connector and screws is easily done.

> Adding a second set of pads for C5, this will allow for 60m and up which uses two Cap’s

I assumed that C6 was added because larger capacitor wouldn't fit on the C5 pads. Rethinking this, it may also be because the values match better this way? In any case, I split up the C5-6 on the original board into two separate caps.

> Also on the 60m and up topic, would adding a second hole for L7 and L8 outside of the toroid, in parallel with the one on the centre help with the bigger toroids?

Not sure what you mean here. I'm not content with the silk screen drawing of these toroids, but it was the only thing I could find for Eagle. The toroid can be installed next to the pads. I personally prefer the way Steve drew them on the SODA POP silk screen. If that's

not what you mean, could you perhaps make a simple image to explain?

By the way, a T37-2 is not much larger than a T30-2 and will fit fine on this board. The T50-2 is only needed for 160m. There is always also the option of mounting one of the toroids on the other side or not putting them horizontally. But if you think it will help I have no problem with adding another pad.

> On the silk screen adding a white rectangle to write what band the module is.

Done. It's about 15x9.5mm, so you'll need a thin marker. I had to move some labels, they are now on less logical positions, but having enough space to write is more important.

Hank,

> End game for me would be either a mass order for the boards, or for boards with complete complement of components and details instructions to build a set of modules for 160/80/40/30/20/17/15/10 (and include 60 and 6 meters if so inclined).

Unfortunately, for me being outside the US this would probably not be worthwhile considering the shipping costs. But if you find enough people and want to use my design feel free to do so of course. There has been talked about OSH park in another thread, I don't have an idea about these prices so I don't know if a bulk buy will decrease the costs significantly.

73,
Camil, PD7LOL

17702. Re: [AT_Sprint] SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-27 20:17:36 UTC
From: vk3byd@...
Topic: 17604 Message: 17702

Thanks Camil,

Ok on the foot.

As for extra pads for C5, that was my mistake, I only noticed today the circuit shows a C5 and C6 but the Band Specific parts list shows it as C5 x 2.

Regarding the Toroid, yes I was wanting to make it as easy as possible to get the T50 to fit. I was worried that when I put a T50 on the board one of the holes would be hidden by the Toriod itself. Hence the suggestion to have a second pad outside the diameter of the T50 core. Thus allowing the T30 - 50 to solder neatly on the board.

Thanks and 73,
Warren vk3byd

17703. Re: [AT_Sprint] SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-27 20:29:23 UTC
From: David
Topic: 17604 Message: 17703

Camil,

Looking good. I was also thinking about the auto band selection. Rather than play around with the pin assignments on the processor, you could use the I2C interface that is used to control the synthesizer. This is a bus that can support multiple devices. You would simply need the two lines SDA and SCL (on the 3.3V side of the level converters) together with 3.3V power to a I2S PIO chip (e.g. NXP PCA9536 - 4 bit I2C PIO - only 8 pin SO8 package - about $1 at digikey) on the plug in module. The other side of the PIO can be jumpered to ground to select the band (there are internal pullups on the inputs) and the value read over the I2C interface using software. With 4 lines, you can select up to 16 modules which should be enough!

Suggest perhaps a right angle pin header on the top of the module to plug in a flying lead that picks up SDA, SCL and +3.3V from appropriate points on the PCB.

Only other check to make is that the +3.3V regulator can supply sufficient current for the PGA103+ (60mA) and the synthesizer (35mA) - I'm having trouble finding the data sheet for the 3.3V regulator - on the schematic it is marked as TL1014-3.3 which I can't find anywhere, so may need Steve to point us to the documentation. I'm guessing it would be good for 100mA, but needs checking.

We'd need some advice from Steve on suitable filter components for 6m I think.

Regards,

David.

On 28/03/2017 6:45 AM, pd7lol@... [AT_Sprint] wrote:
>
> Thanks a lot for all the detailed feedback!
>
> David,
>
> > A useful tip for Eagle: if you "smash" the components on the PCB
> layout, you can move the part number text to better locations.
>
> Thanks a lot, this has been done.
>
> > Noting Steve's recent tests on 6m, it is intriguing to think about
> adding a filter for this band. With the plug in filter module, it
> wouldn't be hard to add a preamp onto the module using a PGA103+. This
> is a very small SMT part and with 2 capacitors, a small choke and a

> +3.3V lead, you can get +26dB gain on 6m. These components could all
> fit on the underside of the board I think. Only tricky bit would be
> getting the +3.3V on a plug in basis.
>
> This may fit well into my idea to make a SMT version using a DB9
> connector, see below.
>
> Warren,
>
> > Would it help to have a foot on the band module PCB to provide
> greater support? Maybe use a plastic stand-off (or two) screwed to the
> bottom of the band PCB which would rest on the surface of the main PCB.
>
> I don't think so. When the module is plugged in, it seems alright
> (when used considerately). It's just that for taking it out again
> 'wiggle' (excuse my English) it a bit and I'm not sure how long the
> headers will last.
>
> Rethinking this, I may try to get the module on a DB9 connector. When
> the module PCB is put between the two rows of pins, one side can be
> used for the toroids and the other for the trimmer caps. The other
> components would be SMT. This would make the PCB smaller (cheaper),
> although it would also make the module fatter. Main objective would be
> to make the connector more stable. Whether this is an option for
> others of course depends on their casing. I plan to make a case from
> unused PCB, so making a hole for the connector and screws is easily done.
>
> > Adding a second set of pads for C5, this will allow for 60m and up
> which uses two Cap’s
>
> I assumed that C6 was added because larger capacitor wouldn't fit on
> the C5 pads. Rethinking this, it may also be because the values match
> better this way? In any case, I split up the C5-6 on the original
> board into two separate caps.
>
> > Also on the 60m and up topic, would adding a second hole for L7 and
> L8 outside of the toroid, in parallel with the one on the centre help
> with the bigger toroids?
>
> Not sure what you mean here. I'm not content with the silk screen
> drawing of these toroids, but it was the only thing I could find for
> Eagle. The toroid can be installed next to the pads. I personally
> prefer the way Steve drew them on the SODA POP silk screen. If that's
> not what you mean, could you perhaps make a simple image to explain?
>
> By the way, a T37-2 is not much larger than a T30-2 and will fit fine
> on this board. The T50-2 is only needed for 160m. There is always also
> the option of mounting one of the toroids on the other side or not
> putting them horizontally. But if you think it will help I have no
> problem with adding another pad.

>
> > On the silk screen adding a white rectangle to write what band the
> module is.
>
> Done. It's about 15x9.5mm, so you'll need a thin marker. I had to move
> some labels, they are now on less logical positions, but having enough
> space to write is more important.
>
> Hank,
>
> > End game for me would be either a mass order for the boards, or for
> boards with complete complement of components and details instructions
> to build a set of modules for
> 160/80/40/30/20/17/15/10 (and include 60 and 6 meters if so inclined).
>
> Unfortunately, for me being outside the US this would probably not be
> worthwhile considering the shipping costs. But if you find enough
> people and want to use my design feel free to do so of course. There
> has been talked about OSH park in another thread, I don't have an idea
> about these prices so I don't know if a bulk buy will decrease the
> costs significantly.
>
> 73,
> Camil, PD7LOL
>
>

17704. Re: [AT_Sprint] SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-28 09:17:52 UTC
From: pd7lol@...
Topic: 17604 Message: 17704

Warren,

> Regarding the Toroid, yes I was wanting to make it as easy as possible to get the T50 to fit. I was worried that when I put a T50 on the board one of the holes would be hidden by the Toriod itself. Hence the suggestion to have a second pad outside the diameter of the T50 core. Thus allowing the T30 - 50 to solder neatly on the board.

I have now made a separate board for 160m. For 160m (and 80m), L4 can be omitted and C31 should be shorted. That made it easier to move some things around and there is now place for T50-2 toroids. For <80m, the layout is largely unchanged. Does this solve it as well?

David,

> Rather than play around with the pin assignments on the processor, you could use the I2C interface that is used to control the synthesizer.

This is a much neater idea indeed. PCA9536 can also run on 5V, this may make it easier to connect it to the controller; there is not much space on the 3.3V level.

> Only other check to make is that the +3.3V regulator can supply sufficient current for the PGA103+ (60mA) and the synthesizer (35mA) - I'm having trouble finding the data sheet for the 3.3V regulator - on the schematic it is marked as TL1014-3.3 which I can't find anywhere, so may need Steve to point us to the documentation. I'm guessing it would be good for 100mA, but needs checking.

After some searching I think it is the TC1014 by Microchip. It can supply 50mA. It's brother TC1015 can supply 100mA so that could be an option. Another option is to run the PGA103+ at 5V from what I believe is a NCP1117 5V regulator (1.0A). However, then it would draw 97mA typ., would be a pity.

73,
Camil, PD7LOL

17705. Re: [AT_Sprint] SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-28 14:15:38 UTC
From: pd7lol@...
Topic: 17604 Message: 17705

Also, I now added an SMT version with a DB9 connector to the repository at https://github.com/camilstaps/SODA-POP-band-module/ https://github.com/camilstaps/SODA-POP-band-module/. I used the same SMT sizes as what we have components of. There is space to write down the band on both sides, but smaller than on the other modules (~5x10mm). The whole board would be 16x30mm, excluding the connector. Including the connector 31x42mm. I think I'm going to try this option. Hopefully I can provide some photos soon (in or after the weekend, I hope).

73,
Camil, PD7LOL

17706. Re: [AT_Sprint] SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-28 17:11:16 UTC
From: Steven Weber
Topic: 17604 Message: 17706

It would be interesting to see how the DB9 connector works out. My experience is the PA does not like long leads to the filter, especially on the higher frequency bands. Also, try to keep the input and output well seperated with ground pins in between.

Steve KD1JV

Also, I now added an SMT version with a DB9 connector to the repository at https://github.com/camilstaps/SODA-POP-band-module/. I used the same SMT sizes as what we have components of. There is space to write down the band on both sides, but smaller than on the other modules (~5x10mm). The whole board would be 16x30mm, excluding the connector. Including the connector 31x42mm. I think I'm going to try this option. Hopefully I can provide some photos soon (in or after the weekend, I hope).

73,
Camil, PD7LOL

17707. Re: [AT_Sprint] SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-28 20:15:20 UTC
From: vk3byd@...
Topic: 17604 Message: 17707

Camil, that’s a good solution making two boards one for 80m down and the other for 60m up.

Can I ask you to split C5 and C6 into two sets of pads on the 160/80 PCB, up to you if you do the same on the 60m and up board as 60m is the only one effected.

As for the connection method pins v’s DB9, I noted Steve’s comments on lead lengths around the PA at higher frequencies. This may impact on those planing a 6m radio, and I will leave to others to decide if this will be a problem.

73,
Warren.

17708. Re: [AT_Sprint] SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-28 20:54:29 UTC
From: David
Topic: 17604 Message: 17708

Camil,

Yes, running the PCA9536 at 5V is an option if that's easier to connect. It would be much preferable to run the PGA103+ from 3V to save the current drain as you noted, so board would then need both +5V and +3.3V connections. I think swapping out the regulator to the TC1015 would be the best option here - easy to do before you've built the board (my kit arrived yesterday, so haven't started the build yet).

Reading the application note for the PGA103+, we'd also need to add another 3 components to the input of the device to ensure stability at 6m (it's only unconditionally stable above 100MHz).

Noting Steve's comment on the length of lines from the PA to the filter, a simple option would be to move the BS170s onto the module too as they don't take a lot of space. I suspect to make 6m work, you'd have to do that. The only issue then is whether the trace length for the gate drive would be too long and have too much inductance leading to gate voltage ringing. If that was the case, then moving the gate driver would also be needed!

Probably need to experiment and see what happens.

73

David
VK3IL

On 28/03/2017 8:17 PM, pd7lol@... [AT_Sprint] wrote:
>
> Warren,
>
> > Regarding the Toroid, yes I was wanting to make it as easy as
> possible to get the T50 to fit. I was worried that when I put a T50 on
> the board one of the holes would be hidden by the Toriod itself. Hence
> the suggestion to have a second pad outside the diameter of the T50
> core. Thus allowing the T30 - 50 to solder neatly on the board.
>
> I have now made a separate board for 160m. For 160m (and 80m), L4 can
> be omitted and C31 should be shorted. That made it easier to move some
> things around and there is now place for T50-2 toroids. For <80m, the
> layout is largely unchanged.Does this solve it as well?
>
> David,
>
> > Rather than play around with the pin assignments on the processor,
> you could use the I2C interface that is used to control the synthesizer.

>
> This is a much neater idea indeed. PCA9536 can also run on 5V, this
> may make it easier to connect it to the controller; there is not much
> space on the 3.3V level.
>
> > Only other check to make is that the +3.3V regulator can supply
> sufficient current for the PGA103+ (60mA) and the synthesizer (35mA) -
> I'm having trouble finding the data sheet for the 3.3V regulator - on
> the schematic it is marked as TL1014-3.3 which I can't find anywhere,
> so may need Steve to point us to the documentation. I'm guessing it
> would be good for 100mA, but needs checking.
>
> After some searching I think it is the TC1014 by Microchip. It can
> supply 50mA. It's brother TC1015 can supply 100mA so that could be an
> option. Another option is to run the PGA103+ at 5V from what I believe
> is a NCP1117 5V regulator (1.0A). However, then it would draw 97mA
> typ., would be a pity.
>
> 73,
> Camil, PD7LOL
>
>

17709. Re: [AT_Sprint] SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-30 09:06:26 UTC
From: pd7lol@...
Topic: 17604 Message: 17709

Steve,

> It would be interesting to see how the DB9 connector works out. My
> experience is the PA does not like long leads to the filter,
> especially on the higher frequency bands. Also, try to keep the input
> and output well seperated with ground pins in between.

I have updated the design. Putting the toroids horizontally made it much smaller (that width is needed any way because of the connector) and made the traces a lot shorter. I also moved the inputs and outputs away from each other, thanks for that.

Will it be an issue that RX and TX connections are close to each other now and a signal may leak over Q9, damaging the RX?

Warren,

> Can I ask you to split C5 and C6 into two sets of pads on the 160/80
> PCB, up to you if you do the same on the 60m and up board as 60m is
> the only one effected.

Sorry, then I misunderstood before. I put them back on both boards, no harm in that I would say.

David,

> Noting Steve's comment on the length of lines from the PA to the
> filter, a simple option would be to move the BS170s onto the module
> too as they don't take a lot of space.

That would be relatively easy especially on the module with headers. Having a header on the place of one or two of the BS170s would also make that module much more stable. You'd probably want to make an SMT version with headers to get some more space. That may be a good idea anyway, because you can greatly reduce trace length on the TX side by moving C3, C5 and C6 to under L8. I would expect an SMT version with headers would perform better than the ones we have now on higher frequencies, although perhaps the DB9 one will be fine too if the wires to the connector are coax.

Minor disadvantage of putting the BS170s on the module is that you would then need to put them on all modules; not just 6m (advantage is that when one of them breaks while in the middle of nowhere, you can still work other bands).

I'll leave this for others to do now though, since I don't have the experience or the testing equipment to work on this.

I uploaded the three designs we have now to OSH Park; see https://oshpark.com/profiles/PD7LOL. Of course, they can still be edited. The one with headers is $11.35 for three, the DB9 one is $3.55 for three.

Thanks again for all the feedback,
73,
Camil, PD7LOL

17710. Re: [AT_Sprint] SODA POP band modules

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-03-30 21:56:32 UTC
From: David Giddy
Topic: 17604 Message: 17710

Camil,

These designs are looking good. I'll likely have a go at SMT 6m version some time later when I have bandwidth. I'll be very interested to see how the DB9 version works out as it should be easier to use in the field I think. The higher bands will likely be the challenge. Agree that coax on the input/outputs could help, however the connection between the BS170s and the output filter may be problematic as it is definitely not 50 ohm impedance there. The output network is not a simple filter, but rather a class E load network that interacts with the output capacitance of the BS170s. Introducing coax here will add additional capacitance (and inductance) that could well significantly alter the waveforms away from class E. By all means try it, but you may find a single wire will work better.

One thought: build the board with SIP headers and use them to connect the coax to the DB9 - that way you can try both versions of the board.

I take it you've decided not to add the auto-band select at this point? There's enough spare pins on the DB9 to do it quite easily I think.

73

David
VK3IL

On Thu, Mar 30, 2017 at 8:06 PM, pd7lol@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> Steve,
>
> > It would be interesting to see how the DB9 connector works out. My
> > experience is the PA does not like long leads to the filter,
> > especially on the higher frequency bands. Also, try to keep the input
> > and output well seperated with ground pins in between.
>
> I have updated the design. Putting the toroids horizontally made it
> much smaller (that width is needed any way because of the connector)
> and made the traces a lot shorter. I also moved the inputs and outputs
> away from each other, thanks for that.
>
> Will it be an issue that RX and TX connections are close to each other
> now and a signal may leak over Q9, damaging the RX?
>
> Warren,

>
> > Can I ask you to split C5 and C6 into two sets of pads on the 160/80
> > PCB, up to you if you do the same on the 60m and up board as 60m is
> > the only one effected.
>
> Sorry, then I misunderstood before. I put them back on both boards, no
> harm in that I would say.
>
> David,
>
> > Noting Steve's comment on the length of lines from the PA to the
> > filter, a simple option would be to move the BS170s onto the module
> > too as they don't take a lot of space.
>
> That would be relatively easy especially on the module with headers.
> Having a header on the place of one or two of the BS170s would also
> make that module much more stable. You'd probably want to make an SMT
> version with headers to get some more space. That may be a good idea
> anyway, because you can greatly reduce trace length on the TX side by
> moving C3, C5 and C6 to under L8. I would expect an SMT version with
> headers would perform better than the ones we have now on higher
> frequencies, although perhaps the DB9 one will be fine too if the wires
> to the connector are coax.
>
> Minor disadvantage of putting the BS170s on the module is that you
> would then need to put them on all modules; not just 6m (advantage is
> that when one of them breaks while in the middle of nowhere, you can
> still work other bands).
>
> I'll leave this for others to do now though, since I don't have the
> experience or the testing equipment to work on this.
>
> ---
>
> I uploaded the three designs we have now to OSH Park; see
> https://oshpark.com/profiles/PD7LOL. Of course, they can still be
> edited. The one with headers is $11.35 for three, the DB9 one is $3.55
> for three.
>
> Thanks again for all the feedback,
> 73,
> Camil, PD7LOL
>
>

--

73

David
VK3IL

17711. for my SODA POP

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-03 22:19:26 UTC
From: Steve Saslow
Topic: 17711 Message: 17711

Please let me know a good source for the little threaded, perhaps solder-able< spacer/stand-offs…should be a big help in my board-mounting hardware! Thank youse!

17712. Compatibility of MMBF4416

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-04 08:19:52 UTC
From: qrper72@...
Topic: 17712 Message: 17712

Hello dear Steve,

Would you please let me know the compatible parts of MMBF4416?
Maybe another popular J-FET for RF AMP is avairable.
For example J310 or MPF102 can be substituted?

ja9mat hidehiko

17713. RE: [AT_Sprint] Compatibility of MMBF4416

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-04 16:02:17 UTC
From: <steve.kd1jv@...>
Topic: 17712 Message: 17713
Attachments: 1 described; binary payloads are missing from this source WARC

The J310 should work, MPF102 have very loose specs.

Hello dear Steve,

Would you please let me know the compatible parts of MMBF4416?
Maybe another popular J-FET for RF AMP is avairable.
For example J310 or MPF102 can be substituted?

ja9mat hidehiko

17714. Soda Pop up and running - sorta

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-04 19:23:42 UTC
From: Randy Moore
Topic: 17714 Message: 17714

Finished my Soda Pop yesterday, built for single band op on 40m. This morning I applied power and went through the calibration procedure. All seemed to work ok. but afterwards the SP has very low sensitivity.

Lacking the suggested tools - freq. counter and scope - I used my K3 receiver and my computer sound card and Spectrogram (audio scope program) to do the cal. Here's what I did. Please point out any stupidity on my part!

1. Tune my K3 to 10.000 Mhz in CW mode.
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7. Now I adjust the encoder to look for a peak in the audio output. The encoder moves the frequency of the audio output, but again, I see no more than a 5-6 db change in output over the 200-1000 Hz range I'm looking at with Spectrogram. So I leave the audio signal at 600 Hz again, which is in the middle of the broad peak.
8. At this point the SP digital display shows 914.8.
9. Click KEYER again and select the desired band - "bn4.0"
10. Click KEYER again to move to PEAK (PEA.)
11. Adjusting CT1 and CT2 results in nice peaks (again keeping the SP volume control adjusted below where the AGC kicks in).
12. Installed the 2.2K resistor at R29.

On-the-air sensitivity is way down. With full audio on the SP, an S9+20 signal on my K3 was only barely up to a comfortable level on the Soda Pop (same antenna as my K3). As that signal faded down to S7 ocassionally, it remained perfectly copiable on my K3, but disappeared on the Soda Pop.

Thanks if you read all this!

What should I look for?

73,
Randy, KS4L

17715. SODA POP source code (+ rotary encoder fix)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-04 20:10:06 UTC
From: pd7lol@...
Topic: 17715 Message: 17715

For those interested in writing new software for the SODA POP rig: I experimented a bit with in-circuit programming using an Arduino board with the chip removed and posted my progress here: https://github.com/camilstaps/SODA-POP-source
https://github.com/camilstaps/SODA-POP-source

I found that the controller sometimes thinks you are turning counter-clockwise when you're actually turning clockwise, especially when turning fast. By changing how often the switches were checked this could be fixed. The same link contains source code that includes this fix.

I have some other ideas for additions to the firmware, such as direct frequency entry, storing the CW speed in the EEPROM, and turning off the display when not tuning to save power. My idea is to add these options as C #define statements so that you can select options at compile-time, and for example flash a version which includes the direct frequency entry but not the power saving. If people are interested we can have a community-maintained version of the firmware in this way. GitHub is made for easy contribution, though I realise that it is primarily something from the software-world and not everybody here will be comfortable with using it. If there are alternatives, it can be moved. I'm also happy to add patches received by mail.

Hopefully everybody is enjoying their new rig as much as I am. Currently awaiting ordered band module PCBs, I have only been able to listen on it so far but the listening is very pleasant. With the Arduino source code it is very easy to make changes, so that was also a very nice decision. Nice work, Steve!

73,
Camil, PD7LOL

17716. RE: [AT_Sprint] Soda Pop up and running - sorta

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-04 20:53:00 UTC
From: <steve.kd1jv@...>
Topic: 17714 Message: 17716
Attachments: 1 described; binary payloads are missing from this source WARC

Your suppose to adjust the BFO trimer for the peak first. Using the encoder moves the IF frequency and if your using that to get a 600 Hz beat note without first adjusting the BFO trimmer, you'll move out of the BW of the filter. So, go back and move the IF freq to 914.5, then adjust the BFO trimmer and you should see a definite peak. To center the IF frequency in the crystal filter, you have to look at the signal at TP1 so it isn't influenced by the audio band pass filter.

Finished my Soda Pop yesterday, built for single band op on 40m. This morning I applied power and went through the calibration procedure. All seemed to work ok. but afterwards the SP has very low sensitivity.

Lacking the suggested tools - freq. counter and scope - I used my K3 receiver and my computer sound card and Spectrogram (audio scope program) to do the cal. Here's what I did. Please point out any stupidity on my part!

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On-the-air sensitivity is way down. With full audio on the SP, an S9+20 signal on my K3 was only barely up to a comfortable level on the Soda Pop (same antenna as my K3). As that signal faded down to S7 ocassionally, it remained perfectly copiable on my K3, but disappeared on the Soda Pop.

Thanks if you read all this!

What should I look for?

73,
Randy, KS4L

17717. Re: SODA POP source code (+ rotary encoder fix)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-04 21:14:54 UTC
From: dl2arl@...
Topic: 17715 Message: 17717

"With the Arduino source code it is very easy to make changes, so that was also a very nice decision. Nice work, Steve!"

... a nice feature to resuscitate would be the beacon loop mode... I miss this option with both the MTR2bander and will miss it with the soda pop too.

73, Razvan DL2ARL

17718. Re: Soda Pop up and running - sorta

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-04 21:33:49 UTC
From: dl2arl@...
Topic: 17714 Message: 17718

KS4L: "11. Adjusting CT1 and CT2 results in nice peaks"

... make sure you have TWO peaks for a complete turn of CT1 & 2, otherwise you might get a false peak resulting from the edge of the trimmer and not from the resonance itself! I think Steve mentions this in the manual too.

If you only have one single peak on the high capacity side of the trimmer, you have too little reactance in the circuit: try increasing the inductivity or put a capacitor parallel to the trimmer (roughly half it's max value...).

If your lone peak is on the low corner of the trimmer, you have too much reactance in the circuit, mabye because of stray inductances not intended to be there, maybe also because of some weird coupling to near-by parts. Try lowering whatever goes.

To "see&feel" if it's a stray something, I fiddle around the circuit with a piece of copper-clad-board connected to a nearby ground-bus the way DavidCopperfield would do while cooking and boiling his magic. If it's stray, it changes, if not, it stays put. If the frequency goes up it's inductive stray (magnetic coupling), if the frequency goes down, it's probably capacitive stray (electric coupling). But don't take my word for it, sometimes it is vice-versa, HI. Thinking you know what it is helps mendig whatever you think it might be and sure gives a good feeling after your'done.

Good luck!
73, Razvan DL2ARL

17719. Re: RE: [AT_Sprint] Soda Pop up and running - sorta [1 Attachment]

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-04 21:39:48 UTC
From: Randy Moore
Topic: 17714 Message: 17719

Steve,

I did initially adjust the BFO trimmer, CT3, but then, I used the encoder to move the signal back to 600 Hz. However, I went through that several times to make sure I wasn't doing something wrong (HA!) and that may have been a problem.

So, I started CAL again and set the IF freq to 914.5 and peaked the BFO trimmer CT3. There was a bit more variation in the audio output, but not much. I left the encoder alone at 914.5. I don't have any way to look at the signal at TP1.

However, now the sensitivity is less than before. An S9 signal on my K3 is almost inaudible on the SP at full audio gain. The signal strength appears to increase at lower sidetone frequencies, so maybe the IF is not in the middle of the crystal filter???

73,
Randy, KS4L

------ Original Message ------
From: "steve.kd1jv@gmail.com [AT_Sprint]" <AT_Sprint@yahoogroups.com>
To: "'Randy Moore' wrmoore47@gmail.com [AT_Sprint]"
<AT_Sprint@yahoogroups.com>
Sent: 4/4/2017 3:53:00 PM
Subject: RE: [AT_Sprint] Soda Pop up and running - sorta [1 Attachment]

>
>[Attachment(s) <#TopText> from steve.kd1jv@... included below]
>
>
>
>Your suppose to adjust the BFO trimer for the peak first. Using the
>encoder moves the IF frequency and if your using that to get a 600 Hz
>beat note without first adjusting the BFO trimmer, you'll move out of
>the BW of the filter. So, go back and move the IF freq to 914.5, then
>adjust the BFO trimmer and you should see a definite peak. To center
>the IF frequency in the crystal filter, you have to look at the signal
>at TP1 so it isn't influenced by the audio band pass filter.
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>Finished my Soda Pop yesterday, built for single band op on 40m. This
>morning I applied power and went through the calibration procedure.
>All seemed to work ok. but afterwards the SP has very low sensitivity.
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>
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>Lacking the suggested tools - freq. counter and scope - I used my K3
>receiver and my computer sound card and Spectrogram (audio scope
>program) to do the cal. Here's what I did. Please point out any
>stupidity on my part!
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>1. Tune my K3 to 10.000 Mhz in CW mode.
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>the SPOT function on the K3, tuning with the SP encoder. Wasn't far
>off to begin with.
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>4. Click KEYER on the SP to go to BFO adjust.
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>range of 200-1000 Hz.)
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>about 200 Hz to about 1000 Hz, but over that range, I see only about a
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>Hz. After doing this a few times, I realized that I should back the SP
>volume control down so that the audio output seen on Spectrogram is not
>at its peak. Otherwise, the AGC masks any peak. The 5 db change I see
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>again, which is in the middle of the broad peak.
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>8. At this point the SP digital display shows 914.8.
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>9. Click KEYER again and select the desired band - "bn4.0"
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>11. Adjusting CT1 and CT2 results in nice peaks (again keeping the SP
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>12. Installed the 2.2K resistor at R29.
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>Soda Pop (same antenna as my K3). As that signal faded down to S7
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>What should I look for?
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>73,
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>Randy, KS4L
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17720. RE: [AT_Sprint] Compatibility of MMBF4416

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-04 21:54:21 UTC
From: qrper72@...
Topic: 17712 Message: 17720

OK thanks Steve,

I have a interest in the SODA POP TRX's receiver part because it does not use popular SA612 like a ATS-4 and MTR-3 I've built. And I think it is more silent than before. So I will try to experiment with J310.

Thanks again, ja9mat hidehiko.

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :

The J310 should work, MPF102 have very loose specs.

Hello dear Steve,

Would you please let me know the compatible parts of MMBF4416?

Maybe another popular J-FET for RF AMP is avairable.

For example J310 or MPF102 can be substituted?

ja9mat hidehiko

17721. Re: [AT_Sprint] Re: Soda Pop up and running - sorta

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-04 21:50:06 UTC
From: Randy Moore
Topic: 17714 Message: 17721

Razvan,

Thanks for your comments.

I definitely have 2 peaks from both CT1 and CT2. They appear to have the same amplitude. Does it matter which one I use?

73,
Randy, KS4L

------ Original Message ------
From: "dl2arl@qsl.net [AT_Sprint]" <AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: 4/4/2017 4:33:49 PM
Subject: [AT_Sprint] Re: Soda Pop up and running - sorta

>
>KS4L: "11. Adjusting CT1 and CT2 results in nice peaks"
>
>... make sure you have TWO peaks for a complete turn of CT1 & 2,
>otherwise you might get a false peak resulting from the edge of the
>trimmer and not from the resonance itself! I think Steve mentions this
>in the manual too.
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>the inductivity or put a capacitor parallel to the trimmer (roughly
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>intended to be there, maybe also because of some weird coupling to
>near-by parts. Try lowering whatever goes.
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>with a piece of copper-clad-board connected to a nearby ground-bus the
>way DavidCopperfield would do while cooking and boiling his magic. If
>it's stray, it changes, if not, it stays put. If the frequency goes up
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>is helps mendig whatever you think it might be and sure gives a good
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>
>Good luck!
>73, Razvan DL2ARL

>
>

17722. Re: Re: RE: [AT_Sprint] Soda Pop up and running - sorta [1 Attachment]

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-04 21:58:46 UTC
From: Randy Moore
Topic: 17714 Message: 17722

I re-entered CAL again to check if I have 2 peaks on CT1 and CT1, and found that the IF freq. was again set to 914.8, not 914.5.

------ Original Message ------
From: "Randy Moore" <wrmoore47@...>
To: AT_Sprint@yahoogroups.com
Cc: "Steven Weber" <steve.kd1jv@...>
Sent: 4/4/2017 4:39:48 PM
Subject: Re: RE: [AT_Sprint] Soda Pop up and running - sorta [1 Attachment]

>Steve,
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>I did initially adjust the BFO trimmer, CT3, but then, I used the
>encoder to move the signal back to 600 Hz. However, I went through
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>K3 is almost inaudible on the SP at full audio gain. The signal
>strength appears to increase at lower sidetone frequencies, so maybe
>the IF is not in the middle of the crystal filter???
>
>73,
>Randy, KS4L
>
>------ Original Message ------
>From: "steve.kd1jv@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>
>To: "'Randy Moore' wrmoore47@... [AT_Sprint]"
><AT_Sprint@yahoogroups.com>
>Sent: 4/4/2017 3:53:00 PM
>Subject: RE: [AT_Sprint] Soda Pop up and running - sorta [1 Attachment]
>
>>
>>[Attachment(s) <#TopText> from steve.kd1jv@... included below]
>>
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>>Your suppose to adjust the BFO trimer for the peak first. Using the
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>>beat note without first adjusting the BFO trimmer, you'll move out of
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>>Randy, KS4L
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17723. RE: [AT_Sprint] Soda Pop up and running - sorta

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-05 00:28:01 UTC
From: Randy Moore
Topic: 17714 Message: 17723

I seem to have fixed my problem. I had installed the 0.01 cap at C59, which the manual says will provide a slightly lower rolloff frequency. Removing it improved sensitivity considerably! Things sound about normal. Listening to W1AW at 7.0475, I can copy easily with the headphones, though there's no audio to spare. The K3 shows this as S9 currently.

I also touched up a couple of solder joints while looking around, but I highly suspect the issue was C59. I'm not inclined to put it back to confirm that.

Tomorrow I'll see what the transmitter does!

73,
Randy, KS4L
>

17724. MTR-3B review by ARRL now online

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-05 00:42:05 UTC
From: ae5x@...
Topic: 17724 Message: 17724

ARRL members can download it here:
http://www.arrl.org/files/file/protected/Group/Members/ProductReview/PROD_REV_0517.pdf
http://www.arrl.org/files/file/protected/Group/Members/ProductReview/PROD_REV_0517.pdf

John AE5X
http://ae5x.blogspot.com/ http://ae5x.blogspot.com/

17725. Re: [AT_Sprint] MTR-3B review by ARRL now online

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-05 01:06:08 UTC
From: Roy Appleton
Topic: 17724 Message: 17725

Sorry but it doesn't work that way, you have to be a member and log in.

Roy
WA0YMH

On Apr 4, 2017 7:42 PM, "ae5x@... [AT_Sprint]" <
AT_Sprint@yahoogroups.com> wrote:

>
>
> ARRL members can download it here:
> http://www.arrl.org/files/file/protected/Group/Members/
> ProductReview/PROD_REV_0517.pdf
>
> John AE5X
> http://ae5x.blogspot.com/
>
>
>
>

17726. Re: MTR-3B review by ARRL now online

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-05 01:37:00 UTC
From: ohwenzelph@...
Topic: 17724 Message: 17726

i found no mention at all of Steve... for me that was a disappointment

jer aa1of

17727. Re: MTR-3B review by ARRL now online

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-05 10:37:11 UTC
From: ae5x@...
Topic: 17724 Message: 17727

I noticed the same thing. A bit of a slight it seems...

17728. SODA POPmaterial for 60m

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-05 11:33:49 UTC
From: hb9bqb@...
Topic: 17728 Message: 17728

I decided to build my SODA POP for 60m only. There are enough parts in the provided band material to combine for 60m as follows:
L3 and L4: 10u+5u=15u, C2, C12: 330p+150p, C5: 680p, C6: 220p
The footprints of the C's allows to solder 2 caps in parallel. The two Inductors in serial I soldered standing up each on one pad and briged with a small wire on the top side.
In my junkbox I found a nice alu case 10x10x2cm whitch fits exactly. I will load a picture of it.
73, Guido, HB9BQB

17729. RE: [AT_Sprint] Re: MTR-3B review by ARRL now online

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-05 15:29:07 UTC
From: <steve.kd1jv@...>
Topic: 17724 Message: 17729

Well, they are reviewing a product from LNR and I took my name off the operating manual supplied by LNR. So, the reviewer might not be aware of where the rig originated from.

I don’t get QST, so if someone can down load the review and forward it to me, I’d like to see what they have to say about it.

Steve KD1JV

I noticed the same thing. A bit of a slight it seems...

17730. RE: [AT_Sprint] Re: MTR-3B review by ARRL now online

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-05 15:42:20 UTC
From: jer terez
Topic: 17724 Message: 17730
Attachments: 1 described; binary payloads are missing from this source WARC

let me know how many copies you get

On Wed, 4/5/17, steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

Subject: RE: [AT_Sprint] Re: MTR-3B review by ARRL now online
To: "ae5x@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>
Date: Wednesday, April 5, 2017, 8:29 AM

Well, they are reviewing a
product from LNR and I took my name off the operating manual
supplied by LNR. So, the reviewer might not be aware of
where the rig originated from. I don’t get QST, so if
someone can down load the review and forward it to me, I’d
like to see what they have to say about it. Steve KD1JV

I noticed the same thing. A bit of a slight it
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17731. Re: [AT_Sprint] Re: MTR-3B review by ARRL now online

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-05 16:17:30 UTC
From: Shirley Márquez Dúlcey
Topic: 17724 Message: 17731

The ARRL reviewer really liked it. Some quotes:

"The MTR-3B completely revolutionized my portable ham radio operations. It is the centerpiece of my portable HF station, all of which (including antenna and tripod) now fits comfortably in a single small daypack, with room to spare for a jacket, water, and snacks."

"I can honestly say that I've had as much fun operating the MTR-3B as I've had with my 100 W home station and tribander. This little radio is perfectly suited to travel in your luggage or backpack, enabling you to get on the air from almost anywhere."

The lab results showed its limitations of relatively poor MDS and IMD dynamic range; the MTR-3B is not a contest radio. But the lab praised its good transmitter performance, low power consumption on both receive and transmit, and its ability to operate over a wide voltage range.

The same issue also reviews the KX2 (by a different reviewer, who loved it) and the Alpha Antenna 10-40 Magnetic Loop antenna (a portable loop that uses coax for the loop, similar to the AlexLoop - oddly, the reviewer never mentions that antenna).

On Wed, Apr 5, 2017 at 11:29 AM, steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Well, they are reviewing a product from LNR and I took my name off the
> operating manual supplied by LNR. So, the reviewer might not be aware of
> where the rig originated from.
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> I don't get QST, so if someone can down load the review and forward it to
> me, I'd like to see what they have to say about it.
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>
> Steve KD1JV
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> I noticed the same thing. A bit of a slight it seems...
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17732. RE: [AT_Sprint] Re: MTR-3B review by ARRL now online

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-05 17:13:41 UTC
From: Mike Olbrisch
Topic: 17724 Message: 17732

Well, I will throw some comments in here.

I don't have an antenna range for testing. But my FT-817 has the ability to quickly switch from antenna to antenna. So I have had the opportunity to try a number of portable antennas in "real world" operating conditions up on high summits away from noise and other metal objects.

I wrote up an extensive comparison of one alpha-loop against an Alex Loop a few years ago. It was the alpha-loop with the 8 aluminum sections that had to be screwed together on the summit. I later got hold of a coax style alpha-loop. I was able to borrow a chameleon loop. I currently own an Alex-Loop and a W4OP-loop, and a Buddi-Pole.

To keep this short, I will just summarize my opinions here. I can share the details of the ones I did the write-ups on if anyone is interested. E-mail me direct so we don't clutter the reflector with antenna stuff that may not interest many.

Bottom line - if size and weight are not an issue, the winner is the W4OP loop. BTW - it also includes 60m and will soon have a 6m kit available (or so I am told). If weight and size (in the backpack) are an issue, then the Alex-Loop gets the nod. The alpha-loops and the chameleon loop all fall 1 to 2 S-units below the W4OP and the Alex loops.

If it is an extreme hike where weight is really an issue I fall back to my ATS-4B over the FT-817, and a segmented EFHWA with a KI6J tuner instead of a loop. That can shave 5 pounds off the pack weight, but few summits I go to demand that much weight reduction. My Buddi-Pole set only gets used as Pedestrian Mobile now, as the W4OP and Alex loops can set up and QSY much quicker than the Buddi-Pole.

BTW - a mag-loop is an easy antenna to build in concept. But there are a few simple mistakes made by many that just kill the efficiency. Getting the right capacitor is the #1 issue, just any old junk-box cap will not do. Not if you care about efficiency anyway.

That's my opinion on the loops - and I too wonder why the others were not mentioned?

Questions direct please, as this isn't an antenna reflector.

Vy73 -- Mike -- KD5KC.

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Wednesday, April 05, 2017 10:18
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: MTR-3B review by ARRL now online

The same issue also reviews the Alpha Antenna 10-40 Magnetic Loop antenna (a portable loop that uses coax for the loop, similar to the AlexLoop - oddly, the reviewer never mentions that antenna).

17733. Re: [AT_Sprint] Re: MTR-3B review by ARRL now online

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-06 00:22:45 UTC
From: Steve Saslow
Topic: 17724 Message: 17733

I can't afford QST, sadly, involving what it does not do for me anymore. I do support the ARRL in a number of ways, especially in my earlier years. - I sure would like to read that article!

My SP is all populated! - to the testing and calibration part. I'm trying to figure out a nice case, using 7/8" sides of double copper-clad 1/32" fiberglass circuitboard, to be a "solder-welded" rectangle...Clear acrylic, maybe 1'16", top and bottom, for grins, visual smoke detection, and viewing pleasure...open-up-able for measuring-testing-servicing-troubleshooting, top and bottom, if need be...

I decided on trying an RCA phono ceramic-center-insulator 2 screws-flanged socket, mounted on the rear side, in place of the board-mounted BNC, because not twisting needed/wanted, greatly reducing possible stresses to the board...smaller footprint, -Collins S-line and KWMs did fine with 'em (Johnson Viking Navigator, too!)...Earlier, I did this on several of my KD1JV rigs, and they have been sweet and trouble-free, kids! I do also think, from several sad and frustrating experiences: the quality of BNCs has apparently gone down, to weaker/thinner less torgque-resistant metals or constructions, especially the barrels, compared to the nearly bomb-proof BNCs on my older test gear, like the URM-25 signal generators, the flange-mounting ones. Twisting to secure/release on the same-axis as the threaded barrel-mount, and/or torquing against the circuitboard on that same axis = questionable/not really sensible...yes? [maybe some people file down, bevel, - or completely off, the 2 little "nubs" on the BNC females, so no twist/pressure/secure/torquing etc necessary?]

(- For any of these presenters and reviewers to not give Steve Weber credit, is imho lame, too narrowly focussed, worse than some simple oversight, a Wrong Thing! -disgusting! -There's a great and simple Belgian gesture for that! :))

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Shirley Márquez Dúlcey mark@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Wednesday, April 5, 2017 9:17 AM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: MTR-3B review by ARRL now online

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Well, they are reviewing a product from LNR and I took my name off the operating manual supplied by LNR. So, the reviewer might not be aware of where the rig originated from.

I don’t get QST, so if someone can down load the review and forward it to me, I’d like to see what they have to say about it.

Steve KD1JV

I noticed the same thing. A bit of a slight it seems...

17734. SODA POP C11, C21, C55 and C56 Warning

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-06 13:01:20 UTC
From: vk6nu@...
Topic: 17734 Message: 17734

Just a heads up and make sure you read the instructions and lay them flat on the board. especially if you want to mount the radio in a Tin box with switches poking through the lid. they are too tall to stand upright to give you room to get to the switches..

So don't do like me and also don't say Steve or myself didn't tell you. Easy fix, some new caps from component shop 5 mins down the road but it can be avoided.

73

John VK6NU

17735. SP transmit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-06 14:51:21 UTC
From: Randy Moore
Topic: 17735 Message: 17735

Tested transmit. I get healthy output and the note is clean. But listening on two different receivers, I hear something I don't understand. After I release the key, the signal drops way down, but continues for a fraction of a second after key-up. I don't have any means of measuring this (either amplitude or duration), but it's definitely there. The SP is transmitting into a good 50 ohm dummy load, and the receivers are not connected to antennas and are 3-4 feet from the SP.

Any comments are welcome.

73,
Randy, KS4L

17736. Re: [AT_Sprint] SP transmit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-06 15:21:53 UTC
From: Hank Greeb
Topic: 17735 Message: 17736

Does this interfere with "True QSK?" i.e. can you hear someone trying
to break in while you're sending at a reasonable speed? It may be that
the computer which controls the frequency doesn't shut down for that
fraction of a second but the finals shut down.

72/73 de n8xx Hg
QRP >99.44% of the time

On 4/6/2017 10:51 AM, Randy Moore wrmoore47@... [AT_Sprint] wrote:
> Tested transmit. I get healthy output and the note is clean. But listening on two different receivers, I hear something I don't understand. After I release the key, the signal drops way down, but continues for a fraction of a second after key-up. I don't have any means of measuring this (either amplitude or duration), but it's definitely there. The SP is transmitting into a good 50 ohm dummy load, and the receivers are not connected to antennas and are 3-4 feet from the SP.
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> Any comments are welcome.
>
> 73,
> Randy, KS4L

17737. RE: [AT_Sprint] SP transmit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-06 16:05:01 UTC
From: <steve.kd1jv@...>
Topic: 17735 Message: 17737

A small signal “leaks” past the PA due to the gate/drain capacitance, so there is a short “tail” until the clock output is turned off. While you can hear this in a near-by receiver, it shouldn’t be an issue on air.

Steve KD1JV

Tested transmit. I get healthy output and the note is clean. But listening on two different receivers, I hear something I don't understand. After I release the key, the signal drops way down, but continues for a fraction of a second after key-up. I don't have any means of measuring this (either amplitude or duration), but it's definitely there. The SP is transmitting into a good 50 ohm dummy load, and the receivers are not connected to antennas and are 3-4 feet from the SP.

Any comments are welcome.

73,
Randy, KS4L

17738. Re: [AT_Sprint] SP transmit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-06 18:11:44 UTC
From: Randy Moore
Topic: 17735 Message: 17738

Thanks, Steve. I tried this with my MTR5B and it doesn't have the "tail." What is different about the SP architecture that causes this?

By the way, the MTR5B audio is MUCH louder than my SP. Do you think something is wrong with my SP? The SP only hears the strongest signals.

Also, I didn't describe my transmit test accurately. I can hear the "tail" in another receiver only when the SP is connected to an antenna. Can't hear it when transmitting into a dummy load - can't even hear the SP signal itself! Receivers NOT connected to an antenna in either case.

To answer Hank's question, I think the "tail" would not allow QSK for any code speed above ~10 wpm, but that's a guess.

73,
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> On Apr 6, 2017, at 11:05 AM, steve.kd1jv@gmail.com [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
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> Any comments are welcome.
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> 73,

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> Randy, KS4L
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17739. RE: [AT_Sprint] SP transmit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-06 20:26:05 UTC
From: <steve.kd1jv@...>
Topic: 17735 Message: 17739
Attachments: 1 described; binary payloads are missing from this source WARC

The same phenomena happens in the ATS/MTR rigs, but the DDS chip can be updated much quicker then the Si5351, so hence the difference.

Apparently your dummy load is well shielded, which is why you only hear anything with the antenna connected.

I’m at a loss as to why you think the audio is low, mine has an overwhelming amount. Look everything over to check for a missing or bad solder connection somewhere.

Steve KD1JV

Thanks, Steve. I tried this with my MTR5B and it doesn't have the "tail." What is different about the SP architecture that causes this?

By the way, the MTR5B audio is MUCH louder than my SP. Do you think something is wrong with my SP? The SP only hears the strongest signals.

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Any comments are welcome.

73,
Randy, KS4L

17740. RE: [AT_Sprint] SP transmit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-07 23:39:31 UTC
From: jgaffke@...
Topic: 17735 Message: 17740

I don't see any spec for the Si5351 I2C max bit rate, but the sister chip Si5338 datasheet says 100 kbits/sec, 400 kbits/sec in fast mode.

The Si5351 datasheet says "Output Frequency Transition Time" is 10us max for signals greater than 1mhz. And even if the PLL didn't slew quite that fast, shutting down an output cell should be pretty much instantaneous once you get it clocked in over I2C.

My guess is the Arduino I2C library makes updates really really slow, slower than the slowest I2C device they have ever seen. Of course, digging through those Arduino libraries and Si5351 docs could take some time. Especially if nobody feels a need to do it.

Jerry, KE7ER

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :
The same phenomena happens in the ATS/MTR rigs, but the DDS chip can be updated much quicker then the Si5351, so hence the difference.

17741. Re: [AT_Sprint] SP transmit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-08 03:07:18 UTC
From: Shirley Márquez Dúlcey
Topic: 17735 Message: 17741

Settling time of the synthesizer is not the limiting factor; those 10 microseconds are a drop in the bucket. The amount of time spent to transmit the frequency change to the Si5351A is the bottleneck.

Page 16 of the Si5351-B data sheet (https://www.silabs.com/documents/public/data-sheets/Si5351-B.pdf):

"The I2C interface operates in slave mode with 7-bit addressing and can operate in Standard-Mode (100 kbps) or Fast-Mode (400 kbps) and supports burst data transfer with auto address increments."

Page 260 of the ATMega328 data sheep (http://ww1.microchip.com/downloads/en/DeviceDoc/Atmel-42735-8-bit-AVR-Microcontroller-ATmega328-328P_Datasheet.pdf):

"Features ... Up to 400kHz Data Transfer Speed"

So that's the fastest the I2C interface is ever going to go with this hardware.

The Wire library that implements I2C on the Arduino normally operates at the lower 100KHz speed, but you can change a constant in the library to switch it to the higher 400KHz speed. It takes about 10 clocks to transmit one byte over I2C, so it's 10K bytes or 40K bytes per second. Changing the frequency of the Si5351A requires sending quite a few bytes of data, so the time for a frequency change is multiple milliseconds at the standard I2C clock rate. Calculating the values also takes some time, because it's doing 64 bit arithmetic on an 8 bit CPU, but it's still trivial compared to the time required to send the data over I2C. Enabling or disabling an output doesn't send as much data and doesn't require new calculations but it still takes a few milliseconds.

The Si5351A was not designed for VFO use. Its primary purpose is generating multiple fixed-frequency clocks, eliminating the need for multiple custom crystal oscillators. It provides excellent clock signals at low cost, but it has some limitations in ham applications.

Originally the only way to calculate the values for programming the synthesizers in the Si5351A was to use an application from Silicon Labs, but that was useless if you needed to calculate new frequencies on the fly. Later they released an application note that explained how to calculate them. The Arduino library is based on this information. http://www.silabs.com/documents/public/application-notes/AN619.pdf

As for differences in the architecture...

The MTR and ATS series rigs (except for the original ATS) use the AD9834 DDS chip. They switch the output of the DDS to a different frequency (offset by the IF frequency) for T/R switching. That's very fast on the AD9834 because it has two sets of frequency registers, and you can flip between them by changing the value of two of the package pins. That can be done in under a microsecond.

The SODA POP doesn't change the frequency of the Si5351A for T/R; that would take far too long. Instead it uses two outputs from the chip. One goes to the transmitter and is on the operating frequency; the other goes to the receive mixer and is offset by the IF frequency. Enabling and disabling an output on the Si5351A has to be done by sending a control register update over I2C, and that takes a non-trivial amount of time.

On Fri, Apr 7, 2017 at 7:39 PM, jgaffke@yahoo.com [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
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> Si5338 datasheet says 100 kbits/sec, 400 kbits/sec in fast mode.
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17742. Re: [AT_Sprint] SP transmit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-08 04:36:50 UTC
From: jgaffke@...
Topic: 17735 Message: 17742

From page 17 of AN619, you can enable/disable the any/all clocks by writing to the 8 bits of register 3.
Page 17 of the data sheet shows that writing a byte to a register requires transferring 29 bits
via the I2C interface. Operating at 100 kbits/sec, that's around 290 us, at 400 kbits/sec it's 73 us.
Either is plenty fast, much faster than the keying envelope decay time. Somebody would have to
dig into the the Arduino libraries to make it happen. Or go around those libraries, perhaps just bit-banging.

---In AT_Sprint@yahoogroups.com, <mark@...> wrote :
Enabling or disabling an output doesn't send as much data and doesn't require new calculations but it still takes a few milliseconds.

17743. Re: SP transmit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-08 06:35:52 UTC
From: pd7lol@...
Topic: 17735 Message: 17743

Turning clocks on and off is done as fast as possible in Steve's code, because he writes directly to the Wire library instead of using the Si5351's output_enable which is rather slow as it does not keep local state. So digging into the Arduino libraries won't help here.

What I believe the issues is, is that in the dash() and dot() routines, TXEN is set low. These routines are called from inkeyer(). After that, inkeyer() waits for twice the dash time if there is a new input. Only after that, the Si5351 is shut down and MUTE is set low. So, the TX clock remains active for twice the dash time after the last dot/dash and all the time you're keying your message (also when TXEN is low, that is). We could experiment with en/disabling the Si5351 TX in the dash() and dot() routines.

73,
Camil, PD7LOL

17744. Re: [AT_Sprint] Re: SP transmit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-08 15:44:32 UTC
From: Steve Saslow
Topic: 17735 Message: 17744

Hiya, Gals and Guys! My SP (sn 63) has started off ALL WORKING JUST FINE! @11vdc: 60mA RX, very sensitive, plenty of audio, 3.5w out, plenty of audio! some details perhaps later/ I don't want to badly sidetrack or bog down the ongoing threads. I did about ten little work sessions, ranging 45 min - 2-3/4 hrs each, mostly about 75min, through building and test/calib. soldering iron/not airflow, nice tweezers, great stereo 'scope @ 10X.

Due to my interests and possible emergency preparedness: can Direct Frequency Entry be programmed? The encoder 50 Hz and 200 Hz steps are super, for tuning and RIT too...but to travel up into SSB range [also great: 7.0000-7.3000] = a lotta crankin'...Would be slick if could enter by holding keyer sw, menu item added/ enunciating D etc,, then DFE paddle entry, exit by clicking RIT (or?)...then for my purpose (SSB RX), I could test and add what I've done on some other KD1JV versions: spst + small fixed cap bypassing a lot of the xtal filter...

Since I know/could do no programing - - maybe DFE is not really possible, anyway...rsvp if not a waste of your time/tnx....yes, I hardly ever want, use or program a message; does that mean there's some possible available space, there, in that microchip area?

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of pd7lol@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Friday, April 7, 2017 11:35 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Re: SP transmit

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17745. Re: [AT_Sprint] Re: SP transmit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-08 16:10:17 UTC
From: Steve Saslow
Topic: 17735 Message: 17745

Oh heck! I just got another idea, on this DFE? question: to get to DFE or maybe much larger tuning steps, how about: hold (as opposed to click) the tuning encoder to get there (DFE entry or the larger steps/fast tune/zip around the band)...golly, that's almost intuitive! :) the big tuning steps = maybe a lot simpler and less programing hassle and space than trying to set up DFE...?

From: Steve Saslow <k7ew@...>
Sent: Saturday, April 8, 2017 8:44 AM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: SP transmit

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Due to my interests and possible emergency preparedness: can Direct Frequency Entry be programmed? The encoder 50 Hz and 200 Hz steps are super, for tuning and RIT too...but to travel up into SSB range [also great: 7.0000-7.3000] = a lotta crankin'...Would be slick if could enter by holding keyer sw, menu item added/ enunciating D etc,, then DFE paddle entry, exit by clicking RIT (or?)...then for my purpose (SSB RX), I could test and add what I've done on some other KD1JV versions: spst + small fixed cap bypassing a lot of the xtal filter...

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en/disabling the Si5351 TX in the dash() and dot() routines.

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17746. Re: [AT_Sprint] Re: DFE (was: SP transmit)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-08 20:58:15 UTC
From: Camil Staps
Topic: 17735 Message: 17746

About the DFE: This is what I had in mind as well. I don't expect many problems with programming it. There's plenty of space on the chip, my development version uses 19,512 / 32,256 bytes. The code for checking how long a button is pressed is already there for other buttons, and then it's just bypassing the keyer routine, similarly to what is done in the memory routine. I expect to have done it with a few weeks at most, unless somebody else wants to do it before of course :)

About big steps tuning: I think a nice UI would be to be able to tune in 50/200/1000/10000 steps. For all steps except 50, the corresponding digit could blink. This is similar to what is done in the blue cool radio.

Like you, I plan to make an option for bypassing the XTAL filter. I think I will cut through the traces around the ON/OFF switch and use that. Battery (un)plugging is enough for switching on and off for me.

73,
Camil, PD7LOL

On 08/04/17 18:10, Steve Saslow k7ew@... [AT_Sprint] wrote:
> Oh heck! I just got another idea, on this DFE? question: to get to
> DFE or maybe much larger tuning steps, how about: hold (as opposed
> to click) the tuning encoder to get there (DFE entry or the larger
> steps/fast tune/zip around the band)...golly, that's almost
> intuitive! :) the big tuning steps = maybe a lot simpler and less
> programing hassle and space than trying to set up DFE...?

> Due to my interests and possible emergency preparedness: can Direct
> Frequency Entry be programmed? The encoder 50 Hz and 200 Hz steps are
> super, for tuning and RIT too...but to travel up into SSB range [also
> great: 7.0000-7.3000] = a lotta crankin'...Would be slick if could
> enter by holding keyer sw, menu item added/ enunciating D etc,, then
> DFE paddle entry, exit by clicking RIT (or?)...then for my purpose
> (SSB RX), I could test and add what I've done on some other KD1JV
> versions: spst + small fixed cap bypassing a lot of the xtal
> filter...

> Since I know/could do no programing - - maybe DFE is not really
> possible, anyway...rsvp if not a waste of your time/tnx....yes, I
> hardly ever want, use or program a message; does that mean there's
> some possible available space, there, in that microchip area?

17747. MTR-5B Unbearable Sidetone Volume

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-08 20:27:19 UTC
From: Anthony DeStefano
Topic: 17747 Message: 17747

I finally dug out an MTR-5B kit and have been building it slowly this winter (I know it's spring now.) I finally go it working, but the sidetone volume on transmit is unbearably loud. The volume when announcing the band is perfect, but one tx it seems to be related to the output power and blows my ears off with a standard set of iPhone ear buds.

I've been trying to track it down but I'm stumped.

--

Anthony DeStefano

adx@...

17748. Re: [AT_Sprint] Re: DFE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-09 08:05:32 UTC
From: Colin Tuckley
Topic: 17735 Message: 17748

On 08/04/17 21:58, Camil wrote:

> The code for checking how long a button is pressed is already there
> for other buttons,

An even simpler solution - just cycle through the 4 states, it will be a maximum of 3 button presses to get to any speed.

73, Colin G8TMV

--
Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
Debian Developer | +44(0)7799 143369 | 0xFA0C410738C9D903

17749. Capacitor specs for other bands

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-09 02:44:25 UTC
From: David
Topic: 17749 Message: 17749

Steve,

I'm looking at sourcing parts for 80/160m. You've provided the needed values, thanks, but I also need to know for the capacitors the required voltage rating and preferred dielectric. I'm guessing 50V and NPO, but thought I'd better ask.

73

David
VK3IL

17750. Re: SODA POP C11, C21, C55 and C56 Warning

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-09 05:57:23 UTC
From: Rick M0LEP
Topic: 17734 Message: 17750

On Thu 06 Apr John VK6NU wrote:
> Easy fix, some new caps from component shop 5 mins down the road but
> it can be avoided.

He. Glad you got it fixed easily. I'll bear that in mind when mine
eventually arrives.

What band did you build yours on, and which summit will be (or was) its
first /P outing?

--
73, Rick, M0LEP

17751. Re: [AT_Sprint] Re: SODA POP C11, C21, C55 and C56 Warning

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-09 12:36:58 UTC
From: John Coleman
Topic: 17734 Message: 17751

Hi Rick

I take it your one is on the world tour with Colin's. I was joking with him last night on FB that the radio will have visited more countries than its every likely to work. Hope it turns up soon. Built mine for 20metres and first outing may be next weekend from ?Mt.randall ?VK6/SW-039. Nothing confirmed yet.

73

John VK6NU

On 09 April 2017 at 13:57 "Rick M0LEP m0lep@... [AT_Sprint]" wrote:

?
On Thu 06 Apr John VK6NU wrote:
> Easy fix, some new caps from component shop 5 mins down the road but
> it can be avoided.

He. Glad you got it fixed easily. I'll bear that in mind when mine
eventually arrives.

What band did you build yours on, and which summit will be (or was) its
first /P outing?

--
73, Rick, M0LEP

?

17752. RE: [AT_Sprint] Capacitor specs for other bands

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-09 13:46:01 UTC
From: <steve.kd1jv@...>
Topic: 17749 Message: 17752
Attachments: 1 described; binary payloads are missing from this source WARC

I go with 100V there just in case of high SWR, C0G/NPO

Steve,

I'm looking at sourcing parts for 80/160m. You've provided the needed values, thanks, but I also need to know for the capacitors the required voltage rating and preferred dielectric. I'm guessing 50V and NPO, but thought I'd better ask.

73

David
VK3IL

17753. Re: [AT_Sprint] Re: DFE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-09 15:12:23 UTC
From: Camil Staps
Topic: 17735 Message: 17753

There are two separate proposals here: DFE and big steps tuning. For DFE, the proposal is to long-press the encoder button. For big steps tuning, what you suggest. With the big steps tuning, DFE might be less needed, but it's still a nice to have and at the moment I can't think of another intuitive feature behind long-pressing the rotary encoder.

73,
Camil, PD7LOL
On 09/04/17 10:05, Colin Tuckley colin@... [AT_Sprint] wrote:
> An even simpler solution - just cycle through the 4 states, it will be a
> maximum of 3 button presses to get to any speed.

17754. Re: [AT_Sprint] Re: DFE (was: SP transmit)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-09 17:06:53 UTC
From: Steve Saslow
Topic: 17735 Message: 17754

Golly! What an informative and inspiring reply, Camil! Do you think, if I can send you my ?? is it the ATMEGA328 chip, could/would you be able to program it?

Thanks to Steve Weber, I've come to increasingly use, value and enjoy DFE, (I got introduced to it on the PFR-3A and earliest AT Sprints). However, I would settle very happily for the addition of being able to select larger tuning steps on the SP, either with click/holding etc the Key or RIT switches, or Click/hold/maybe double-clicking? the encoder (maybe not as durable as the the others?) Increasing the tuning steps to about 10KHz at a time would be plenty, imho.

For what it's worth, Camil, my filter bypasses have been hardwired using a 22-27pF 16-25v cap, a spst very small switch, and a little planning and fabrication to place switch/switch body and shortest-possible wires in non-interfering places...(from the SP schematic, I've gone in after L5/either side of C39...and back, on one side or the other of C18. This has not always provided great LSB intelligibility, as Steve W very appropriately explained and warned me!, but it has worked...decently enough to use...

Thank you! -Steve, K7EW

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Camil Staps pd7lol@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Saturday, April 8, 2017 1:58 PM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: DFE (was: SP transmit)

About the DFE: This is what I had in mind as well. I don't expect many problems with programming it. There's plenty of space on the chip, my development version uses 19,512 / 32,256 bytes. The code for checking how long a button is pressed is already there for other buttons, and then it's just bypassing the keyer routine, similarly to what is done in the memory routine. I expect to have done it with a few weeks at most, unless somebody else wants to do it before of course :)

About big steps tuning: I think a nice UI would be to be able to tune in 50/200/1000/10000 steps. For all steps except 50, the corresponding digit could blink. This is similar to what is done in the blue cool radio.

Like you, I plan to make an option for bypassing the XTAL filter. I think I will cut through the traces around the ON/OFF switch and use that. Battery (un)plugging is enough for switching on and off for me.

73,
Camil, PD7LOL

On 08/04/17 18:10, Steve Saslow k7ew@... [AT_Sprint] wrote:
> Oh heck! I just got another idea, on this DFE? question: to get to

> DFE or maybe much larger tuning steps, how about: hold (as opposed
> to click) the tuning encoder to get there (DFE entry or the larger
> steps/fast tune/zip around the band)...golly, that's almost
> intuitive! :) the big tuning steps = maybe a lot simpler and less
> programing hassle and space than trying to set up DFE...?

> Due to my interests and possible emergency preparedness: can Direct
> Frequency Entry be programmed? The encoder 50 Hz and 200 Hz steps are
> super, for tuning and RIT too...but to travel up into SSB range [also
> great: 7.0000-7.3000] = a lotta crankin'...Would be slick if could
> enter by holding keyer sw, menu item added/ enunciating D etc,, then
> DFE paddle entry, exit by clicking RIT (or?)...then for my purpose
> (SSB RX), I could test and add what I've done on some other KD1JV
> versions: spst + small fixed cap bypassing a lot of the xtal
> filter...

> Since I know/could do no programing - - maybe DFE is not really
> possible, anyway...rsvp if not a waste of your time/tnx....yes, I
> hardly ever want, use or program a message; does that mean there's
> some possible available space, there, in that microchip area?

Yahoo Groups Links

Yahoo! Groups<http://groups.yahoo.com/group/AT_Sprint/join>
groups.yahoo.com
/

(Yahoo! ID required)

17755. Re: [AT_Sprint] Re: DFE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-09 17:16:00 UTC
From: Steve Saslow
Topic: 17735 Message: 17755

Is this something you could/would program for me, Colin? I have no equipment, knowledge, experience of how this is done. None! Can I send you my MEGA328 chip? Or probably buy a new totally unprogrammed one and send that to you? I have a feeling they're not too expensive, at this point...and I could retain the original...That approach really helped me, when I got some similar assistance on my PFR-3A...glad I retained the original IC...

thank you! Steve K7EW - -Yeah, 3 or 4 presses would be fine! -cycling the size of tuning steps...

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Colin Tuckley colin@tuckley.org [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Sunday, April 9, 2017 1:05 AM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: DFE

On 08/04/17 21:58, Camil wrote:

> The code for checking how long a button is pressed is already there
> for other buttons,

An even simpler solution - just cycle through the 4 states, it will be a maximum of 3 button presses to get to any speed.

73, Colin G8TMV

--
Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
Debian Developer | +44(0)7799 143369 | 0xFA0C410738C9D903

Yahoo Groups Links

17756. RE: [AT_Sprint] Re: DFE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-09 21:42:03 UTC
From: <steve.kd1jv@...>
Topic: 17735 Message: 17756

Making more tuning steps is trivial – just need to copy and paste one of the steps in list, give it another name, add the appropriate number of zeros to the constant and increase the number in the roll over counter to equal the number of steps +1.

Adding DFE is a whole lot harder and would add a lot of code. First you need to decode the Morse, then modify the frequency variable with those numbers.

Part of that already exists to record the Morse elements for message entry. After the digits are entered, they can scaled and added to the lower frequency limit to get the final frequency value.

Steve KD1JV

There are two separate proposals here: DFE and big steps tuning. For
DFE, the proposal is to long-press the encoder button. For big steps
tuning, what you suggest. With the big steps tuning, DFE might be less
needed, but it's still a nice to have and at the moment I can't think of
another intuitive feature behind long-pressing the rotary encoder.

73,
Camil, PD7LOL
On 09/04/17 10:05, Colin Tuckley colin@... [AT_Sprint] wrote:
> An even simpler solution - just cycle through the 4 states, it will be a
> maximum of 3 button presses to get to any speed.

17757. Re: [AT_Sprint] Capacitor specs for other bands [1 Attachment]

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-09 23:29:08 UTC
From: David Giddy
Topic: 17749 Message: 17757

Thanks, yes 100V makes sense.

73

David
VK3IL

On Sun, Apr 9, 2017 at 11:46 PM, steve.kd1jv@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
> [Attachment(s) <#m_5536686855455661969_TopText> from steve.kd1jv@gmail.com
> included below]
>
> I go with 100V there just in case of high SWR, C0G/NPO
>
>
>
>
>
> Steve,
>
> I'm looking at sourcing parts for 80/160m. You've provided the needed
> values, thanks, but I also need to know for the capacitors the required
> voltage rating and preferred dielectric. I'm guessing 50V and NPO, but
> thought I'd better ask.
>
> 73
>
> David
> VK3IL
>
>
>
>
>
>
>
>

--

73

David
VK3IL

17758. mtr3b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-09 23:33:54 UTC
From: jddavidson72@...
Topic: 17758 Message: 17758

got a mtr3b at ozarkcon no manual would like to have some kind of manual cant seem to get on lnr page. so as to work with commands and find a operators and build schematics please jim davidson kc0dd

17759. NAQCC April Sprint this Tuesday Evening

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-10 00:33:16 UTC
From: Larry W2LJ
Topic: 16561 Message: 17759

On Tuesday evening, April 11 (4/12 UTC), we will have our landmark 150th regular monthly sprint.
We want to celebrate this event by giving away a prize worth $150 to one member-participant!
But there is a catch, we will only have a prize drawing if we get at least 150 submitted logs.
You don’t have to be an experienced contester or a high speed CW operator to participate. Just get on the air, make at least 1 sprint QSO, and submit your log, and you will be eligible for the prize drawing.
So mark your calendar and get ready!

EDT - 8:30-10:30PM, CDT - 7:30-9:30PM, MDT - 6:30-8:30PM, PDT - 5:30-7:30PM), which translates as Wednesday, April 12th, 0030 to 0230Z in all cases.

For all the "official" information, please go to:

http://naqcc.info/sprint/sprint201704.html

There you will find all the details as to time, frequencies and other important information.

This is a monthly event that caters to the CW veteran, the CW newcomer, straight key and bug fans. All are welcome to participate (this includes QRO); but you must use QRP power levels to compete for awards.

If you've been hesitant to join in our sprints because you hear other sprints running at breakneck speeds, have no fear. Our sprints are geared to the newcomer to CW and/or contesting. Virtually everyone including the many veteran contesters who regularly enter our sprints will slow down to YOUR speed to help you make your contacts.

If you are not already a member of NAQCC... membership is FREE! Now is your chance to join the largest QRP CW Club in the world!! We currently have 7100+ members in: All 50 States - 9 VE Provinces - 100 Countries. Sign up on the NAQCC website today (http://naqcc.info/) and receive a handsome certificate, with your membership number on it, which is good for life.

Come join us and have a real good time!

72/73 de Larry W2LJ
NAQCC #35

for NAQCC
http://naqcc.info/

17760. Re: mtr3b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-10 01:30:04 UTC
From: jgaffke@...
Topic: 17758 Message: 17760

It's in the files section under "MTR Version 2"
https://groups.yahoo.com/neo/groups/AT_Sprint/files/MTR%20Version%202%20/
https://groups.yahoo.com/neo/groups/AT_Sprint/files/MTR%20Version%202%20/

17761. Re: [AT_Sprint] Re: DFE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-10 08:38:12 UTC
From: Camil Staps
Topic: 17735 Message: 17761

I would be happy to send you a new chip with a new firmware (have some lying around that I don't have any plans for), but the firmware needs to be written first of course. If you're interested, please drop me a private email to work out the details.

How wide would you estimate the band filter to be with the 22-27pF cap? Just wide enough for SSB or wider? I was originally planning on bypassing everything from C39 to C18 (excluding one of the caps). On the ATS, this gives a wider filter, which I use to search for activity. If your mod gives a good USB filter, maybe I should use a 3-way switch.

73,
Camil, PD7LOL

On 09/04/17 19:06, Steve Saslow k7ew@... [AT_Sprint] wrote:
> Golly! What an informative and inspiring reply, Camil! Do you think, if I can send you my ?? is it the ATMEGA328 chip, could/would you be able to program it?
>
>
> Thanks to Steve Weber, I've come to increasingly use, value and enjoy DFE, (I got introduced to it on the PFR-3A and earliest AT Sprints). However, I would settle very happily for the addition of being able to select larger tuning steps on the SP, either with click/holding etc the Key or RIT switches, or Click/hold/maybe double-clicking? the encoder (maybe not as durable as the the others?) Increasing the tuning steps to about 10KHz at a time would be plenty, imho.
>
>
> For what it's worth, Camil, my filter bypasses have been hardwired using a 22-27pF 16-25v cap, a spst very small switch, and a little planning and fabrication to place switch/switch body and shortest-possible wires in non-interfering places...(from the SP schematic, I've gone in after L5/either side of C39...and back, on one side or the other of C18. This has not always provided great LSB intelligibility, as Steve W very appropriately explained and warned me!, but it has worked...decently enough to use...
>
>
> Thank you! -Steve, K7EW
>
>
> _____
> From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Camil Staps pd7lol@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
> Sent: Saturday, April 8, 2017 1:58 PM
> To: AT_Sprint@yahoogroups.com
> Subject: Re: [AT_Sprint] Re: DFE (was: SP transmit)
>
> About the DFE: This is what I had in mind as well. I don't expect many

> problems with programming it. There's plenty of space on the chip, my
> development version uses 19,512 / 32,256 bytes. The code for checking
> how long a button is pressed is already there for other buttons, and
> then it's just bypassing the keyer routine, similarly to what is done in
> the memory routine. I expect to have done it with a few weeks at most,
> unless somebody else wants to do it before of course :)
>
> About big steps tuning: I think a nice UI would be to be able to tune in
> 50/200/1000/10000 steps. For all steps except 50, the corresponding
> digit could blink. This is similar to what is done in the blue cool radio.
>
> Like you, I plan to make an option for bypassing the XTAL filter. I
> think I will cut through the traces around the ON/OFF switch and use
> that. Battery (un)plugging is enough for switching on and off for me.
>
> 73,
> Camil, PD7LOL
>
> On 08/04/17 18:10, Steve Saslow k7ew@... [AT_Sprint] wrote:
>> Oh heck! I just got another idea, on this DFE? question: to get to
>> DFE or maybe much larger tuning steps, how about: hold (as opposed
>> to click) the tuning encoder to get there (DFE entry or the larger
>> steps/fast tune/zip around the band)...golly, that's almost
>> intuitive! :) the big tuning steps = maybe a lot simpler and less
>> programing hassle and space than trying to set up DFE...?
>
>> Due to my interests and possible emergency preparedness: can Direct
>> Frequency Entry be programmed? The encoder 50 Hz and 200 Hz steps are
>> super, for tuning and RIT too...but to travel up into SSB range [also
>> great: 7.0000-7.3000] = a lotta crankin'...Would be slick if could
>> enter by holding keyer sw, menu item added/ enunciating D etc,, then
>> DFE paddle entry, exit by clicking RIT (or?)...then for my purpose
>> (SSB RX), I could test and add what I've done on some other KD1JV
>> versions: spst + small fixed cap bypassing a lot of the xtal
>> filter...
>
>> Since I know/could do no programing - - maybe DFE is not really
>> possible, anyway...rsvp if not a waste of your time/tnx....yes, I
>> hardly ever want, use or program a message; does that mean there's
>> some possible available space, there, in that microchip area?
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> Yahoo Groups Links

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>
> Yahoo! Groups<http://groups.yahoo.com/group/AT_Sprint/join>
> groups.yahoo.com
> /
>
>
>
> (Yahoo! ID required)
>
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>

17762. Re: [AT_Sprint] mtr3b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-10 11:57:50 UTC
From: Dale Putnam
Topic: 17758 Message: 17762
Attachments: 2 described; binary payloads are missing from this source WARC

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of jddavidson72@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Sunday, April 9, 2017 5:33 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] mtr3b

got a mtr3b at ozarkcon no manual would like to have some kind of manual cant seem to get on lnr page. so as to work with commands and find a operators and build schematics please jim davidson kc0dd

17763. Re: [AT_Sprint] mtr3b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-10 12:31:55 UTC
From: colin.evans2@...
Topic: 17758 Message: 17763
Attachments: 2 described; binary payloads are missing from this source WARC

The enquiry was about the 3 band MTR from LNR.

I attached both the kit and LNR manuals, HTC

73, Colin

17764. 516 Setup v1.08.exe in files section

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-10 06:26:29 UTC
From: mfhepp@...
Topic: 17764 Message: 17764

Hi all,
there is an executable file in the files section without any description:

516 Setup v1.08.exe

Can anybody please tell me what this is meant to do? And ideally add a description?

Thanks!

73 de Martin, DK3IT

17765. FOXTRAVAGANZA!!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-11 03:07:24 UTC
From: Dale Putnam
Topic: 17101 Message: 17765

Tuesday evening local.. the LAST FOXHUNT of the winter season, will be held. April 11, (local) will be the day, the regular time to start. Check the webpage www.qrpfoxhunt.org<http://www.qrpfoxhunt.org>

QRP Fox Hunt Home Page<http://www.qrpfoxhunt.org/>
www.qrpfoxhunt.org
Welcome to the QRP FOX HUNT! Home Page "It's a fine fox chase, my boys!" George Washington, Battle of Princeton, 1777

for the rules.. the exchange will be RST, State, Name, Pwr ..

To honor one of our members will be missed, K9JWV (SK) recently, many of us will be using "JIM" in the exchange. How many "JIM"s can you find?

Please post your log on the qfox reflector, that will be our only scores for this final FOXTRAVAGANZA.. of the season. COME Have some fun with us.!!

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

17766. mtr3b with arduino inside

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-11 22:00:13 UTC
From: ut0um@...
Topic: 17766 Message: 17766
Attachments: 3 described; binary payloads are missing from this source WARC

Hello

this is my edition of MTR-3B with Arduino inside

PCB size same with original (like credit card)

in nearest time it will be fitted to aluminium cigarette box case

73! Alexey UT0UM

17767. Re: mtr3b with arduino inside

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-11 22:08:42 UTC
From: ut0um@...
Topic: 17766 Message: 17767
Attachments: 1 described; binary payloads are missing from this source WARC

Here is sound of 40 meters at evening

17768. Re: FOXTRAVAGANZA!!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-11 23:33:23 UTC
From: Dale Putnam
Topic: 17101 Message: 17768

The NAQCC Sprint will be on tonight also.. with the FOXTRAVAGANZA..
The NAQCC exchange is RST STATE PWR or #
The FOXHUNT exchange is RST STATE NAME PWR

For the FOXHUNT FOX, HOUNDS, and Committee, who will be working each other.. all for all.. in order to share with the NAQCC and help everyone have a great time.. let's work them too.. I happen to have an NAQCC number.. and will make my exchange:

RST WY JIM nr 272 5w IF you don't have a number.. just send your power.
The only catch may be in getting their name.. and in that case.. from an NAQCC member, it would be real easy to log in the name as NAQCC..

that covers the needed info.. for the FOXHUNT.. and for the NAQCC..

Now, for the NAQCC.. they have scoring to worry about..
FOXHUNT folks will not.. so the more we work.. the happier we get. And.. the more fun for all.

ALSO ---
because we will have many more stations in the woods than normal.. let's expand to utilize ALL that we can. In other words.. BIGGER WOODS. IF you find a clear spot below 7.030.. go for it.. or above 7.050.. spread out to ease the pressure a bit..

Let's all have fun..
GOOD LUCK!! See you in the wider woods

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Dale Putnam daleputnam@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Monday, April 10, 2017 9:07 PM
To: AT Sprint
Subject: [AT_Sprint] FOXTRAVAGANZA!!

Tuesday evening local.. the LAST FOXHUNT of the winter season, will be held. April 11, (local) will be the day, the regular time to start. Check the webpage www.qrpfoxhunt.org<http://www.qrpfoxhunt.org>

QRP Fox Hunt Home Page<http://www.qrpfoxhunt.org/>
www.qrpfoxhunt.org
Welcome to the QRP FOX HUNT! Home Page "It's a fine fox chase, my boys!" George Washington, Battle of Princeton, 1777

for the rules.. the exchange will be RST, State, Name, Pwr ..

To honor one of our members will be missed, K9JWV (SK) recently, many of us will be using "JIM" in the exchange. How many "JIM"s can you find?

Please post your log on the qfox reflector, that will be our only scores for this final FOXTRAVAGANZA.. of the season. COME Have some fun with us.!!

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

17769. Re: mtr3b with arduino inside

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-12 00:16:52 UTC
From: racingtheclouds@...
Topic: 17766 Message: 17769

Why?

17770. Re: [AT_Sprint] Re: mtr3b with arduino inside

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-12 00:21:54 UTC
From: Shirley Márquez Dúlcey
Topic: 17766 Message: 17770

The first part of the question, why build one by hand at all? It's a ham thing to do.

The second part... why replace the microcontroller with an Arduino? Ease of programming. He probably redid the code in C, much like the code in Steve's new SODA POP. For many of us, that means that extending and changing it will be easier than with the original assembler code. The main downside is that it will consume a bit more power, which will decrease battery life.

On Tue, Apr 11, 2017 at 8:16 PM, racingtheclouds@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Why?
>
>

17771. Re: [AT_Sprint] MTR-5B Unbearable Sidetone Volume

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-12 11:26:11 UTC
From: Anthony DeStefano
Topic: 17747 Message: 17771

After some more troubleshooting I think I've narrowed it down to a large amount of RF feeding back through the digital control circuitry. When sending sidetone for menu items the sidetone is a clean square wave. However, sidetone for sending is terribly overlaid on a bunch of RF.

-Anthony WR3T

> On Apr 8, 2017, at 4:27 PM, Anthony DeStefano adx@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> I finally dug out an MTR-5B kit and have been building it slowly this winter (I know it's spring now.) I finally go it working, but the sidetone volume on transmit is unbearably loud. The volume when announcing the band is perfect, but one tx it seems to be related to the output power and blows my ears off with a standard set of iPhone ear buds.
>
> I've been trying to track it down but I'm stumped.
>
> --
> Anthony DeStefano
> adx@...
>
>

17772. Re: mtr3b with arduino inside

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-12 03:16:00 UTC
From: nofalls@...
Topic: 17766 Message: 17772

Nicely done!

73
Mark
AG7BW

17773. Re: [AT_Sprint] Re: mtr3b with arduino inside

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-12 09:11:56 UTC
From: ut0um@...
Topic: 17766 Message: 17773
Attachments: 1 described; binary payloads are missing from this source WARC

I have good experience with our 5bands version of PFR radio, but also Arduino based http://forums.qrz.com/index.php?threads/portable-field-radio-5-band-dds-qrp-ukrainian-edition.518735/

but i want smaller radio and not want to buy it for 300$

I soldered my version for only about 30$ for parts

The power consumption of Arduino based MTR-3B is about 60mA (12V) at RX mode,
TX mode not tested yet, but i think it will be about 900mA (12V) with 5w output like arduino based PFR

73! Alexey UT0UM

17774. RE: [AT_Sprint] Capacitor specs for other bands

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-12 13:16:20 UTC
From: david@...
Topic: 17749 Message: 17774

Hi Steve,

Another question or two if you don't mind. Camil PD7LOL and I are working on plug in modules and I'm needing to source parts for them. In particular, the module will have CT1/CT2 and L3/L4 on it as well as the capacitors.

What are the part numbers for CT1/CT2 and L3/L4? The trimmers look similar to Sprague-Goodman GKG60015, but it would be good to know for sure. Similarly for the inductors, if you can let us know the part numbers, we can make sure we get the right ones.

Finally, now that you've proved the board works all the way up to 6m, are you able to provide part values for the 15/12/10m bands (and 6m band if you have that) ?

Out of curiosity, have you considered whether the board would work with the new MF/LF bands (630m and 2200m)? Obviously a significantly bigger filter would be required!

Regards,

David.
VK3IL

17775. Hot Air Buils SODA

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-12 14:18:11 UTC
From: W2CTX
Topic: 17775 Message: 17775

Well my 300 watt air gun finally arrived from china! Now I havenever built using this method. Do I do all the caps then the
resistors, etc? Or do I do all on one side? Do I section of thepc card and build by sections? Once one side is finished canI turn it over and do the other? Will the parts on the other side fall off?
In other words H E L P!!!!!!!
Any help appreciated.
Ron

17776. Re: [AT_Sprint] Hot Air Builds SODA

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-12 15:34:21 UTC
From: Steve Saslow
Topic: 17775 Message: 17776

Ron, imho and I would say a fairly successful but beginner's experience with "air-flow" and solder paste on circuitboards, yours are among the most appropriate and important questions! I had pretty good successes doing only the very few tiny ICs on Steve W's boards, then inspecting at 10X stereo and cleaning very carefully with a control-able thin and pointy-tip soldering iron and solder wick. Then I did the rest with soldering iron and tweezers, either section by section, or now: by Steve's guide/manual on the SODA POP all the resistors, then all the caps, all on the most populated side...etc. For the SP, his packaging beautifully fits that building process. Going slowly and piece-by-piece has helped me double- and triple-check for correct values and very good placements and orientations...I did my SP in about a dozen little work sessions, of 45 min to 2+ hrs...

For what I tried with air-flow,and solder paste, several you-tube videos really helped me prepare. Pre-heating entire board before and after (vicinity of 250deg f as in an over truly on "warm" or really control-able hotplate) air-flow are apparently pretty crucial...Also, a **gentle! current of air, and serious temperature control of it...GL to you!

-Steve k7ew

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of W2CTX w2ctx@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Wednesday, April 12, 2017 7:18 AM
To: AT Sprint
Subject: [AT_Sprint] Hot Air Builds SODA

Well my 300 watt air gun finally arrived from china! Now I have
never built using this method. Do I do all the caps then the
resistors, etc? Or do I do all on one side? Do I section of the
pc card and build by sections? Once one side is finished can
I turn it over and do the other? Will the parts on the other side fall off?

In other words H E L P!!!!!!!

Any help appreciated.

Ron

17777. Re: [AT_Sprint] Hot Air Builds SODA

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-12 16:00:21 UTC
From: Martha Auchard
Topic: 17775 Message: 17777

Watch several YouTube videos first. I usually do any ics first so I have plenty of room to clean them up then start loading in sections. I do use a thermostatically controlled hot plate to warm my board. Then I flip it and do the second side. They will not come off. If anything does pop off, it wasn't put on correctly in the first place. I raise my board with some pennies to keep the components off the hot plate. It ends up being rather fun.
Martha W0ERI

On Apr 12, 2017 10:49, "Steve Saslow k7ew@... [AT_Sprint]" <
AT_Sprint@yahoogroups.com> wrote:

>
>
> Ron, imho and I would say a fairly successful but beginner's experience
> with "air-flow" and solder paste on circuitboards, yours are among the most
> appropriate and important questions! I had pretty good successes doing
> only the very few tiny ICs on Steve W's boards, then inspecting at 10X
> stereo and cleaning very carefully with a control-able thin
> and pointy-tip soldering iron and solder wick. Then I did the rest with
> soldering iron and tweezers, either section by section, or now: by Steve's
> guide/manual on the SODA POP all the resistors, then all the caps, all on
> the most populated side...etc. For the SP, his packaging beautifully fits
> that building process. Going slowly and piece-by-piece has helped me
> double- and triple-check for correct values and very good placements and
> orientations...I did my SP in about a dozen little work sessions, of 45 min
> to 2+ hrs...
>
> For what I tried with air-flow,and solder paste, several you-tube
> videos really helped me prepare. Pre-heating entire board before and
> after (vicinity of 250deg f as in an over truly on "warm" or really control-able
> hotplate) air-flow are apparently pretty crucial...Also, a **gentle!
> current of air, and serious temperature control of it...GL to you!
>
> -Steve k7ew
>
>
> ------------------------------
> *From:* AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf
> of W2CTX w2ctx@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
> *Sent:* Wednesday, April 12, 2017 7:18 AM
> *To:* AT Sprint
> *Subject:* [AT_Sprint] Hot Air Builds SODA
>
>

>
> Well my 300 watt air gun finally arrived from china! Now I have
> never built using this method. Do I do all the caps then the
> resistors, etc? Or do I do all on one side? Do I section of the
> pc card and build by sections? Once one side is finished can
> I turn it over and do the other? Will the parts on the other side fall off?
>
> In other words H E L P!!!!!!!
>
> Any help appreciated.
>
> Ron
>
>
>

17778. Re: [AT_Sprint] Hot Air Builds SODA

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-12 16:26:20 UTC
From: Steve Saslow
Topic: 17775 Message: 17778

Oh yes! Like Martha is saying: I next "populated" around the secured ICs, to fill in and provide space to work and leave previously secured parts as un-interfered-with as possible...building outward...also: smallest and least-vertical = attach before "taller"

'way to go, Martha! regards! -Steve k7ew

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Martha Auchard crbcrb0003@gmail.com [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Wednesday, April 12, 2017 9:00 AM
To: 'Steven Weber' steve.kd1.
Subject: Re: [AT_Sprint] Hot Air Builds SODA

Watch several YouTube videos first. I usually do any ics first so I have plenty of room to clean them up then start loading in sections. I do use a thermostatically controlled hot plate to warm my board. Then I flip it and do the second side. They will not come off. If anything does pop off, it wasn't put on correctly in the first place. I raise my board with some pennies to keep the components off the hot plate. It ends up being rather fun.
Martha W0ERI

On Apr 12, 2017 10:49, "Steve Saslow k7ew@...m<mailto:k7ew@...> [AT_Sprint]" <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

Ron, imho and I would say a fairly successful but beginner's experience with "air-flow" and solder paste on circuitboards, yours are among the most appropriate and important questions! I had pretty good successes doing only the very few tiny ICs on Steve W's boards, then inspecting at 10X stereo and cleaning very carefully with a control-able thin and pointy-tip soldering iron and solder wick. Then I did the rest with soldering iron and tweezers, either section by section, or now: by Steve's guide/manual on the SODA POP all the resistors, then all the caps, all on the most populated side...etc. For the SP, his packaging beautifully fits that building process. Going slowly and piece-by-piece has helped me double- and triple-check for correct values and very good placements and orientations...I did my SP in about a dozen little work sessions, of 45 min to 2+ hrs...

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-Steve k7ew

From: AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com> <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> on behalf of W2CTX w2ctx@...<mailto:w2ctx@yahoo.com> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>>

Sent: Wednesday, April 12, 2017 7:18 AM
To: AT Sprint
Subject: [AT_Sprint] Hot Air Buils SODA

Well my 300 watt air gun finally arrived from china! Now I have
never built using this method. Do I do all the caps then the
resistors, etc? Or do I do all on one side? Do I section of the
pc card and build by sections? Once one side is finished can
I turn it over and do the other? Will the parts on the other side fall off?

In other words H E L P!!!!!!!

Any help appreciated.

Ron

17779. Re: [AT_Sprint] Re: mtr3b with arduino inside [1 Attachment]

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-12 16:49:07 UTC
From: Joe Street
Topic: 17766 Message: 17779

I looked at your blog. I really like the front panel you did. Nice work
all around.

On Wed, Apr 12, 2017 at 5:11 AM, ut0um@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
> [Attachment(s) <#m_3589306400608794012_TopText> from ut0um@...
> [AT_Sprint] included below]
>
> I have good experience with our 5bands version of PFR radio, but also
> Arduino based
> <http://forums.qrz.com/index.php?threads/portable-field-radio-5-band-dds-qrp-ukrainian-e
dition.518735/>
>
> but i want smaller radio and not want to buy it for 300$
>
> I soldered my version for only about 30$ for parts
>
> The power consumption of Arduino based MTR-3B is about 60mA (12V) at RX
> mode,
> TX mode not tested yet, but i think it will be about 900mA (12V) with 5w
> output like arduino based PFR
>
> 73! Alexey UT0UM
>
>
>

17780. RE: [AT_Sprint] Capacitor specs for other bands

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-14 12:59:31 UTC
From: Steven Weber
Topic: 17749 Message: 17780

I'm now on a hiking trip and won't be home for a while. You can use values from the 5B for other bands and be real close.

On Apr 12, 2017 9:16 AM, "david@... [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:

>
>
> Hi Steve,
>
> Another question or two if you don't mind. Camil PD7LOL and I are working
> on plug in modules and I'm needing to source parts for them. In particular,
> the module will have CT1/CT2 and L3/L4 on it as well as the capacitors.
>
> What are the part numbers for CT1/CT2 and L3/L4? The trimmers look similar
> to Sprague-Goodman GKG60015, but it would be good to know for sure.
> Similarly for the inductors, if you can let us know the part numbers, we
> can make sure we get the right ones.
>
> Finally, now that you've proved the board works all the way up to 6m, are
> you able to provide part values for the 15/12/10m bands (and 6m band if you
> have that) ?
>
> Out of curiosity, have you considered whether the board would work with
> the new MF/LF bands (630m and 2200m)? Obviously a significantly bigger
> filter would be required!
>
> Regards,
>
> David.
> VK3IL
>
>
>
>
>
>
>

17781. RE: [AT_Sprint] Capacitor specs for other bands

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-14 13:14:30 UTC
From: david@...
Topic: 17749 Message: 17781

OK, thank Steve. Enjoy your hike!

17782. SP Calibration 10 MHz unstable for me

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-15 02:13:01 UTC
From: jds@...
Topic: 17782 Message: 17782

I helped my son build the SODA POP over the past few couple of days.
It was his first SMD project and he did pretty well with it, only missed a few joints and 2 bad joints. I'm jealous of his not needing a microscope to work...

We cleaned up the board and brought it up with neither neither dimmed lights nor smoke, even after turning the power switch on... So far so good.

We hooked it up to a good frequency counter and the output on TP3 was wandering by about 20KHz every few seconds just below 10 MHz, always in motion.
I checked the signal on the crystal itself and it's very close to 25 MHz and stable to a few 10ths of a Hz.

The tuning knob doesn't seem to be doing much, but I verified that the uC and the si5351 are communicating over I2C on every click of the tuner knob:
Read 0x11: 0x2C
Write 0x11: 0x2C
Read 0x34: 0x00
Write 0x32: 0x00,0x01,0x00,0x2B,0x00,0x00,0x00,0x00
Read 0x11: 0x2C
Write 0x11: 0x2C
Read 0x34: 0x00
Write 0x34: 0x00
Write 0x22: 0x0FF, 0xFF, 0x00, 0x0F, 0xFF, 0xFE, 0xA4, 0x7F

So, the si5351 seems to be ACKing just fine.

Putting TP3 on a scope, it's like a textbook image with the center cycle being sharp and the further away from the trigger the blurrier the trace.

Unfortunately all of my si5351's are soldered onto something or I'd just lift this one and try another.

Has anyone else encountered this?

- John
W1JDS

17783. Re: [AT_Sprint] SP Calibration 10 MHz unstable for me

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-15 12:17:21 UTC
From: Randy Moore
Topic: 17782 Message: 17783

John,

I'm not seeing any of your problems. But I still have very low audio and/or overall sensitivity. Only hearing the strongest signals.

73,
Randy, KS4L

> On Apr 14, 2017, at 9:13 PM, jds@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> I helped my son build the SODA POP over the past few couple of days.
> It was his first SMD project and he did pretty well with it, only missed a few
> joints and 2 bad joints. I'm jealous of his not needing a microscope to work...
>
> We cleaned up the board and brought it up with neither neither dimmed lights nor
> smoke, even after turning the power switch on... So far so good.
>
> We hooked it up to a good frequency counter and the output on TP3 was wandering
> by about 20KHz every few seconds just below 10 MHz, always in motion.
> I checked the signal on the crystal itself and it's very close to 25 MHz and stable to a
> few 10ths of a Hz.
>
> The tuning knob doesn't seem to be doing much, but I verified that the uC and the
> si5351 are communicating over I2C on every click of the tuner knob:
> Read 0x11: 0x2C
> Write 0x11: 0x2C
> Read 0x34: 0x00
> Write 0x32: 0x00,0x01,0x00,0x2B,0x00,0x00,0x00,0x00
> Read 0x11: 0x2C
> Write 0x11: 0x2C
> Read 0x34: 0x00
> Write 0x34: 0x00
> Write 0x22: 0x0FF, 0xFF, 0x00, 0x0F, 0xFF, 0xFE, 0xA4, 0x7F
>
>
> So, the si5351 seems to be ACKing just fine.
>
>
>
> Putting TP3 on a scope, it's like a textbook image with the center cycle being sharp and
the further away from the trigger the blurrier the trace.
>
>
>
> Unfortunately all of my si5351's are soldered onto something or I'd just lift this one
and try another.

>
>
>
> Has anyone else encountered this?
>
>
>
> - John
>
> W1JDS
>
>

17784. Re: [AT_Sprint] SP Calibration 10 MHz unstable for me

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-15 18:36:51 UTC
From: Steve Saslow
Topic: 17782 Message: 17784

-Not to be a kibitzer or off on a tangent, John, but my usually good freq counter needed a little adjustment (trigger level and balance...also cycle rate) -and then it didn't show signal wandering around/showed right on. Also, I have another counter, to help verify it is or is not the problem...and my o'scope can (do a Fourier Transform so it can:) display frequency...and that agreed with my counters, and showed a very nice waveform! - Good luck and congratulations to your son and you!

[-May I offer, with admiration and respect: my experience has been that it's not solely an eyesight issue, which, in my 70s I do have/some...it's a kind of "tuning in" and focus: I did use 10X stereo for a lot of my build. - - I've kept one from my Biology and Botany major college days, also for going after tiny splinters, and end-on bits of metal and wire, not to mention tiny plants and animals, rock crystals, bird feather details... That (binocular low-power microscope) did aid greatly, in spotting, adjusting and evaluating the parts' placements, the solder joints (amount... shiny&smooth and like a classic right-angle joint weld bead, vs rough shapes, not-shiny, granular), resin residues unneeded after soldering and oh-so-capable of getting metal and grime bits and dusts stuck to them!, solder spatters and a lot of the other crud-bits...rechecking the marked values (which I took the time to organize so their numerals etc are in the same 2 directions, not really OCD but for re-checking and troubleshooting convenience/efficiency). I believe I recall Dale WC7S reporting/finding conducting crud apparently stuck in resin between the leads and underneath at least one IC, - to totally respectfully reference his experience!]

(Cheers! -Steve k7ew)

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of jds@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Friday, April 14, 2017 7:13 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] SP Calibration 10 MHz unstable for me

I helped my son build the SODA POP over the past few couple of days.
It was his first SMD project and he did pretty well with it, only missed a few
joints and 2 bad joints. I'm jealous of his not needing a microscope to work...

We cleaned up the board and brought it up with neither neither dimmed lights nor
smoke, even after turning the power switch on... So far so good.

We hooked it up to a good frequency counter and the output on TP3 was wandering
by about 20KHz every few seconds just below 10 MHz, always in motion.
I checked the signal on the crystal itself and it's very close to 25 MHz and stable to a
few 10ths of a Hz.

The tuning knob doesn't seem to be doing much, but I verified that the uC and the
si5351 are communicating over I2C on every click of the tuner knob:
Read 0x11: 0x2C
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Read 0x34: 0x00
Write 0x32: 0x00,0x01,0x00,0x2B,0x00,0x00,0x00,0x00
Read 0x11: 0x2C
Write 0x11: 0x2C
Read 0x34: 0x00
Write 0x34: 0x00
Write 0x22: 0x0FF, 0xFF, 0x00, 0x0F, 0xFF, 0xFE, 0xA4, 0x7F

So, the si5351 seems to be ACKing just fine.

Putting TP3 on a scope, it's like a textbook image with the center cycle being sharp and the further away from the trigger the blurrier the trace.

Unfortunately all of my si5351's are soldered onto something or I'd just lift this one and try another.

Has anyone else encountered this?

- John

W1JDS

17785. Re: [AT_Sprint] SP Calibration 10 MHz unstable for me

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-15 22:48:58 UTC
From: John Sutter
Topic: 17782 Message: 17785

At first I suspected the setup of the frequency counter too, so I put it on the scope:
??? http://www.sutters.com/AmateurRadio/SODA_POP/spectrum_spread_10Mhz.jpg

It looks like a spectrum spread 10MHz signal.
Reading the spec for the Si5351, it's not clear what the power-on state of the the SSC_EN bit is.? I'd hope it was disabled, but the only reference I've seen to register 149 where the SSC_EN bit lives is AN619 and it shows the reset value as "xxxx xxxx" which does not give me a good feeling.

I've cleaned the board pretty well a few times, resoldered the Si5351 (and cleaned it again).

When I get a chance I'll put a programming header on the PCB so I can do more debugging.

I'd be lost without the microscopes at work.? Woot had a deal on a $800 stereo scope for $20
last week.? I snapped up 3 of the, or at least tried.? They cancelled all orders the next day.
I knew it was a pricing error on their part, but I was hoping they'd at least honor one of mine :-(

Fortunately we have some pretty good RF test equipment.? I use our good signal generators and
spectrum analyzers often.? We just got our network analyzer updated and calibrated, now I just
have to learn what to do with it...

- John
W1JDS

On 4/15/2017 11:36 AM, Steve Saslow k7ew@... [AT_Sprint] wrote:

?

? ? ?-Not to be a kibitzer or off on a tangent, John, but my usually good freq?counter needed?a little adjustment (trigger level and balance...also cycle rate) -and then it didn't show signal wandering around/showed right on. Also, I have another counter, to help verify?it is or is not the problem...and my o'scope can (do a Fourier Transform so it can:) display frequency...and that agreed with my counters, and?showed?a very nice waveform! - Good luck and congratulations to?your son and you!?

? ? ? ? ? [-May I offer, with?admiration?and respect: ?my experience has been that it's not solely?an?eyesight issue, which, in my 70s I do have/some...it's a kind of "tuning in"?and focus:?I did use 10X stereo for a lot of my build. - -?I've kept one from my Biology and Botany major college days, also for going after tiny splinters, and end-on bits of metal and wire, not to?mention?tiny?plants and animals, rock crystals, bird feather details...?That (binocular low-power microscope)?did aid?greatly, in spotting, adjusting

and evaluating?the parts' placements, the?solder joints (amount... shiny&smooth and like a classic right-angle joint weld bead, vs rough shapes,?not-shiny, granular), resin residues unneeded after soldering and oh-so-capable of?getting metal and grime bits and dusts stuck to them!,?solder spatters and a lot of the other crud-bits...rechecking the marked values (which I?took the time to organize so?their numerals etc are?in the same 2 directions, not really OCD but?for re-checking and?troubleshooting convenience/efficiency). I believe I?recall Dale WC7S reporting/finding conducting crud apparently stuck in resin between the leads?and underneath at least one?IC, -?to totally respectfully reference his experience!?]

(Cheers! ?-Steve k7ew)

? ? ??

From: AT_Sprint@yahoogroups.com on behalf of jds@... [AT_Sprint]
Sent: Friday, April 14, 2017 7:13 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] SP Calibration 10 MHz unstable for me
?

?

I helped my son build the SODA POP over the past few couple of days.
It was his first SMD project and he did pretty well with it, only missed a few joints and 2 bad joints.? I'm jealous of his not needing a microscope to work...

We cleaned up the board and brought it up with neither neither dimmed lights nor smoke, even after turning the power switch on... ? So far so good.

We hooked it up to a good frequency counter and the output on TP3 was wandering by about 20KHz every few seconds just below 10 MHz, always in motion.
I checked the signal on the crystal itself and it's very close to 25 MHz and stable to a few 10ths of a Hz.

The tuning knob doesn't seem to be doing much, but I verified that the uC and the si5351 are communicating over I2C on every click of the tuner knob:
??? Read? 0x11: 0x2C
??? Write 0x11: 0x2C
??? Read? 0x34: 0x00
??? Write 0x32: 0x00,0x01,0x00,0x2B,0x00,0x00,0x00,0x00
??? Read? 0x11: 0x2C
??? Write 0x11: 0x2C
??? Read? 0x34: 0x00
??? Write 0x34: 0x00
??? Write 0x22: 0x0FF, 0xFF, 0x00, 0x0F, 0xFF, 0xFE, 0xA4, 0x7F

So, the si5351 seems to be ACKing just fine.

Putting TP3 on a scope, it's like a textbook image with the center cycle being sharp and the further away from the trigger the blurrier the trace.

Unfortunately all of my si5351's are soldered onto something or I'd just lift this one and try another.

Has anyone else encountered this?

- John

W1JDS

17786. Re: [AT_Sprint] SP Calibration 10 MHz unstable for me

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-16 12:50:10 UTC
From: Shirley Márquez Dúlcey
Topic: 17782 Message: 17786

One of the best ways to determine whether an oscillator is really frequency-stable is to LISTEN to it in a receiver. (Or listen to it indirectly by using it as a receiver LO and listening to a CW signal or continuous tone with the receiver.) That's how the problem with the original oscillator module in the MTR-5B was found.

If it looks and sounds like a spread spectrum signal, it could be that's exactly what it is. As you already mentioned the Si5351A is capable of generating those, though the firmware is supposed to disable that option; maybe you have an incorrectly programmed ATMega328. If you have an Arduino Uno handy (or certain earlier models, or any clone that has a socketed ATMega328 in a DIP package) you can reflash the firmware by putting the microcontroller in your Arduino and using the Arduino software on your computer to program it. The Arduino sketch is available in the Files area of this group. You could also try replacing the ATMega328 with the one from your Arduino, just in case it's defective.

A standard Si5351A straight from the factory is not preprogrammed to do ANYTHING. It just sits there generating no output at all until it gets some data over the I2C interface. It is possible to get them preprogrammed, in which case the initial setup is stored in an one-time-programmable memory on the device that is loaded into the registers at power-up. (The other popular device from Silicon Labs, the Si570, is different. That one contains user-programmable non-volatile memory and shipped pre-programmed to produce an output. You can change the default output with CFGSR.)

On Sat, Apr 15, 2017 at 6:48 PM, John Sutter jds@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> At first I suspected the setup of the frequency counter too, so I put it
> on the scope:
> http://www.sutters.com/AmateurRadio/SODA_POP/spectrum_spread_10Mhz.jpg
>
> It looks like a spectrum spread 10MHz signal.
> Reading the spec for the Si5351, it's not clear what the power-on state of
> the the SSC_EN
> bit is. I'd hope it was disabled, but the only reference I've seen to
> register 149 where
> the SSC_EN bit lives is AN619 and it shows the reset value as "xxxx xxxx"
> which does
> not give me a good feeling.
>
> I've cleaned the board pretty well a few times, resoldered the Si5351 (and
> cleaned it again).

>
> When I get a chance I'll put a programming header on the PCB so I can do
> more debugging.
>
> I'd be lost without the microscopes at work. Woot had a deal on a $800
> stereo scope for $20
> last week. I snapped up 3 of the, or at least tried. They cancelled all
> orders the next day.
> I knew it was a pricing error on their part, but I was hoping they'd at
> least honor one of mine :-(
>
> Fortunately we have some pretty good RF test equipment. I use our good
> signal generators and
> spectrum analyzers often. We just got our network analyzer updated and
> calibrated, now I just
> have to learn what to do with it...
>
> - John
> W1JDS
>
>
>
> On 4/15/2017 11:36 AM, Steve Saslow k7ew@... [AT_Sprint] wrote:
>
>
>
> -Not to be a kibitzer or off on a tangent, John, but my usually good
> freq counter needed a little adjustment (trigger level and balance...also
> cycle rate) -and then it didn't show signal wandering around/showed right
> on. Also, I have another counter, to help verify it is or is not the
> problem...and my o'scope can (do a Fourier Transform so it can:) display
> frequency...and that agreed with my counters, and showed a very nice
> waveform! - Good luck and congratulations to your son and you!
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> [-May I offer, with admiration and respect: my experience has
> been that it's not solely an eyesight issue, which, in my 70s I do
> have/some...it's a kind of "tuning in" and focus: I did use 10X stereo
> for a lot of my build. - - I've kept one from my Biology and Botany major
> college days, also for going after tiny splinters, and end-on bits of metal
> and wire, not to mention tiny plants and animals, rock crystals, bird
> feather details... That (binocular low-power microscope) did aid greatly,
> in spotting, adjusting and evaluating the parts' placements, the solder
> joints (amount... shiny&smooth and like a classic right-angle joint weld
> bead, vs rough shapes, not-shiny, granular), resin residues unneeded
> after soldering and oh-so-capable of getting metal and grime bits and dusts
> stuck to them!, solder spatters and a lot of the other
> crud-bits...rechecking the marked values (which I took the time to
> organize so their numerals etc are in the same 2 directions, not really
> OCD but for re-checking and troubleshooting convenience/efficiency). I
> believe I recall Dale WC7S reporting/finding conducting crud apparently

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> totally respectfully reference his experience!]
>
>
> (Cheers! -Steve k7ew)
>
>
>
>
> ------------------------------
> *From:* AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com>
> <AT_Sprint@yahoogroups.com> on behalf of jds@... [AT_Sprint]
> <AT_Sprint@yahoogroups.com> <AT_Sprint@yahoogroups.com>
> *Sent:* Friday, April 14, 2017 7:13 PM
> *To:* AT_Sprint@yahoogroups.com
> *Subject:* [AT_Sprint] SP Calibration 10 MHz unstable for me
>
>
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> Read 0x34: 0x00
> Write 0x32: 0x00,0x01,0x00,0x2B,0x00,0x00,0x00,0x00
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> So, the si5351 seems to be ACKing just fine.

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> Putting TP3 on a scope, it's like a textbook image with the center cycle
> being sharp and the further away from the trigger the blurrier the trace.
>
>
> Unfortunately all of my si5351's are soldered onto something or I'd just
> lift this one and try another.
>
>
> Has anyone else encountered this?
>
>
> - John
>
> W1JDS
>
>
>
>

17787. Re: SP Calibration 10 MHz unstable for me

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-21 13:24:35 UTC
From: dl2arl@...
Topic: 17782 Message: 17787

"...Unfortunately all of my si5351's are soldered onto something or I'd just lift this one and try another..."

...I would also take a sharp look at my power supply... If you modulate the SI5351 with 60 or 120Hz, that is probably how it will look like :
"center cycle sharp and the further away from the trigger the blurrier the trace."

Some good scopes allow you to trigger to the mains frequency. This might also help, although I get a brain-lockup trying to imagine how the signal will look like on your screen while triggered to the mains: by no means the opposite from now:

"center cycle blurred and the further away from the trigger the sharper the trace." HIHIHI

Not having any better power supply at handy should be no problem: try a 9V block cell: can't get much cleaner than that... Otherwise, be happy and live with it, conscious of having a unique signal everyone will recognise on the band at once without having to listen to your call...;-)

Interesting topic!
Good luck es 73, Razvan DL2ARL

17788. Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-21 18:37:08 UTC
From: Randy Moore
Topic: 17788 Message: 17788

I'm still trying to figure out why my SP has low audio or low sensitivity. Lacking any real test equipment, other than another receiver, a DVM, dummy load, and wattmeter, here's what I've learned. (The SP is built for 40m.)

- Transmitter output with about 13v from the power supply is around 4w, and the signal sounds very clean in my other receivers. So the circuitry that's common to both rx and tx should be ok.

- With full audio gain (the gain control works fine) a signal that I receive on my K3 at S9+10 is just comfortably loud in the SP. I can't hear anything on the SP if its less than about S7 on the K3. I've checked with 2-3 headsets that work just fine on other receivers. An S9+10 signal on my MTR5B is MUCH louder using the same headset as on the SP.

- Sidetone is about the same level as a received S9+10 signal - just comfortable. Also not as loud as on the MTR5B. Sidetone is correctly not effected by the audio gain pot.

- I've been over the soldering about 5-6 times, each time touching up 1-2 solder joints, but with no change. I've also triple checked the resistors, ICs, etc. that have readable labels to make sure the right part is in the right place. Can't do anything like that for the Ls and Cs (except for the torroids, which have the correct turns).

So, I'm stuck. I haven't been able to isolate where the problem is coming from. Any advice would be appreciated.

Tnx es 73,
Randy, KS4L

17789. mtr3b with arduino inside

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-21 18:45:09 UTC
From: ut0um@...
Topic: 17766 Message: 17789
Attachments: 3 described; binary payloads are missing from this source WARC

Hello!

I fit my version of MTR to cigarette case http://www.ebay.com/itm/172179779992

73! Alexey UT0UM

17790. Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-21 20:26:40 UTC
From: Camil Staps
Topic: 17788 Message: 17790

If you can get your hands on a scope, we can compare amplitudes on
different points, but I'm assuming this is not an option. Or is the DVM
capable of measuring low AC voltages?

The sidetone should be quite loud. On standard cellphone earplugs, I can
still hear it from a metre distance in a quiet environment.

If the sidetone is also not loud enough, the issue will be in or after
the LM386. After building my SP, Q18 was broken. I hadn't statically
discharged before building, which I think was the issue. Q12 is the same
part, so it could have gotten broken in the same way. Does something
change if you remove Q12?

If the sidetone is OK, the issue can still be anywhere between the
antenna and the LM386. You could try to trace back the audio. If you
touch pin 2 or 3 of the LM386 with a metal screwdriver or wire connected
to your hand, you should hear a very loud buzzing noise (2 much louder
than 3. Again, if this not the case, the issue is in the LM386).
Between C45 and V1 sounds roughly the same as on U2, pin 3 (the AGC
should make the rig silent for about 1s after you release).
Before Q17 (on pin 7 of U1), touching the trace should 'plop' softly but
not buzz. Touching the middle pin of Q17 should mute. Shorting the two
other pins of Q17 (from U1-7 to C45) disables muting, but should not
make a difference in normal mode.

73,
Camil, PD7LOL

On 21/04/17 20:37, 'Randy Moore' wrmoore47@... [AT_Sprint] wrote:
> I'm still trying to figure out why my SP has low audio or low
> sensitivity. Lacking any real test equipment, other than another
> receiver, a DVM, dummy load, and wattmeter, here's what I've learned.
> (The SP is built for 40m.)
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> hear anything on the SP if its less than about S7 on the K3. I've
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> S9+10 signal on my MTR5B is MUCH louder using the same headset as on the
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> comfortable. Also not as loud as on the MTR5B. Sidetone is correctly not
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> - I've been over the soldering about 5-6 times, each time touching up
> 1-2 solder joints, but with no change. I've also triple checked the
> resistors, ICs, etc. that have readable labels to make sure the right
> part is in the right place. Can't do anything like that for the Ls and
> Cs (except for the torroids, which have the correct turns).
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> So, I'm stuck. I haven't been able to isolate where the problem is
> coming from. Any advice would be appreciated.
>
> Tnx es 73,
> Randy, KS4L

17791. Re: Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-21 22:00:35 UTC
From: Randy Moore
Topic: 17788 Message: 17791

Camil,

Thanks for your suggestions!

I can't hear the sidetone with the cellphone earbuds 10 cm from my ear!

It will be tomorrow before I can play with removing Q12, but here's what I hear when poking around as you suggested.

On the LM386, U2:
Pin 2 - VERY loud buzzing
Pin 3 - when touching this pin, I hear what sounds like a local AM broadcast station (Fox News of all things!). No buzzing at all. This happens whether I'm hooked to the dummy load or an actual antenna!

Between C45 and V1, I hear a very low pitched (lower than on U2, Pin 2) hum that is moderately loud - much quieter than U2, Pin 2. And I can't detect any AGC action after releasing the screwdriver touch here. Listening to an actual CW signal, it drops in amplitude a bit when I touch here, then immediately resumes its previous level if I hold the screwdriver there.

Before Q17 (pin 7 of U1): I hear a light "tick," then the audio level drops for a fraction of a second, then comes back up. No Buzz.
Touching the middle pin of U17 does nothing.

Shorting the other 2 pins of U17 does nothing.

Can you make anything sense of this???

Thanks again!

73,
Randy, KS4L

------ Original Message ------
From: "Camil Staps pd7lol@... [AT_Sprint]"
<AT_Sprint@...m>
To: AT_Sprint@yahoogroups.com
Sent: 4/21/2017 3:26:40 PM
Subject: Re: [AT_Sprint] Soda Pop audio

>
>If you can get your hands on a scope, we can compare amplitudes on
>different points, but I'm assuming this is not an option. Or is the DVM
>capable of measuring low AC voltages?
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>The sidetone should be quite loud. On standard cellphone earplugs, I

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>still hear it from a metre distance in a quiet environment.
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>change if you remove Q12?
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>connected
>to your hand, you should hear a very loud buzzing noise (2 much louder
>than 3. Again, if this not the case, the issue is in the LM386).
>Between C45 and V1 sounds roughly the same as on U2, pin 3 (the AGC
>should make the rig silent for about 1s after you release).
>Before Q17 (on pin 7 of U1), touching the trace should 'plop' softly
>but
>not buzz. Touching the middle pin of Q17 should mute. Shorting the two
>other pins of Q17 (from U1-7 to C45) disables muting, but should not
>make a difference in normal mode.
>
>73,
>Camil, PD7LOL
>
>On 21/04/17 20:37, 'Randy Moore' wrmoore47@... [AT_Sprint] wrote:
> > I'm still trying to figure out why my SP has low audio or low
> > sensitivity. Lacking any real test equipment, other than another
> > receiver, a DVM, dummy load, and wattmeter, here's what I've learned.
> > (The SP is built for 40m.)
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> > So, I'm stuck. I haven't been able to isolate where the problem is
> > coming from. Any advice would be appreciated.
> >
> > Tnx es 73,
> > Randy, KS4L
>
>

17792. Re: Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-21 23:02:42 UTC
From: Jonathan
Topic: 17788 Message: 17792

I have the same problem with pin 3 picking up Fox News. The appendix to the manual indicates you might have the pin bent too far to the right. The rig should be Fair and Balanced to function properly.dit-ditW0XO Jonathan

17793. Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-22 04:48:09 UTC
From: ohwenzelph@...
Topic: 17788 Message: 17793

Emergency appendectomy STAT!

Sent from my iPad

> On Apr 21, 2017, at 4:02 PM, Jonathan kc7fys@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> I have the same problem with pin 3 picking up Fox News. The appendix to the manual indicates you might have the pin bent too far to the right. The rig should be Fair and Balanced to function properly.
> dit-dit
> W0XO Jonathan
>

17794. MTR v2 - Almost no power on 40m

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-22 05:22:32 UTC
From: kb8log@...
Topic: 17794 Message: 17794

I've run into a problem with my MTR v2. It's been sitting on the shelf for about a year while I was busy away from radio. I brought it out a couple nights ago and found that the power output on 40m is only about 0.02 watts. Everything looks good on 30m and 20m.

I'm not quite sure where to begin troubleshooting and narrowing down the issue. Any help would be appreciated.

17795. Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-22 05:35:18 UTC
From: Camil Staps
Topic: 17788 Message: 17795

Thanks for all the data! The broadcasting station is common in audio amplifiers; your body acts as an antenna.

There appears to be a problem around the LM386, since the sidetone is loud and the AGC does not kick in when you release U2-3. Yes, please see what happens when you remove Q12. This disables the AGC.

That shorting source and drain of Q17 does not make a difference is good. That touching the middle pin does not make a difference is not. But I would then expect the middle pin to be grounded - and then shorting the other two pins would make a difference. Maybe it is not important, so let's look at the LM386 first.

73,
Camil, PD7LOL

On 22/04/17 00:00, 'Randy Moore' wrmoore47@... [AT_Sprint] wrote:
> Camil,
>
> Thanks for your suggestions!
>
> I can't hear the sidetone with the cellphone earbuds 10 cm from my ear!
>
> It will be tomorrow before I can play with removing Q12, but here's what
> I hear when poking around as you suggested.
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> On the LM386, U2:
> Pin 2 - VERY loud buzzing
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> broadcast station (Fox News of all things!). No buzzing at all. This
> happens whether I'm hooked to the dummy load or an actual antenna!
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> Between C45 and V1, I hear a very low pitched (lower than on U2, Pin 2)
> hum that is moderately loud - much quieter than U2, Pin 2. And I can't
> detect any AGC action after releasing the screwdriver touch here.
> Listening to an actual CW signal, it drops in amplitude a bit when I
> touch here, then immediately resumes its previous level if I hold the
> screwdriver there.
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> Before Q17 (pin 7 of U1): I hear a light "tick," then the audio level
> drops for a fraction of a second, then comes back up. No Buzz.
> Touching the middle pin of U17 does nothing.
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> Shorting the other 2 pins of U17 does nothing.
>
> Can you make anything sense of this???

>
> Thanks again!
>
> 73,
> Randy, KS4L
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>
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> From: "Camil Staps pd7lol@... [AT_Sprint]"
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>> not buzz. Touching the middle pin of Q17 should mute. Shorting the two
>> other pins of Q17 (from U1-7 to C45) disables muting, but should not
>> make a difference in normal mode.
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>> 73,
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>> > I'm still trying to figure out why my SP has low audio or low
>> > sensitivity. Lacking any real test equipment, other than another
>> > receiver, a DVM, dummy load, and wattmeter, here's what I've learned.
>> > (The SP is built for 40m.)
>> >
>> > - Transmitter output with about 13v from the power supply is around 4w,

>> > and the signal sounds very clean in my other receivers. So the
>> circuitry
>> > that's common to both rx and tx should be ok.
>> >
>> > - With full audio gain (the gain control works fine) a signal that I
>> > receive on my K3 at S9+10 is just comfortably loud in the SP. I can't
>> > hear anything on the SP if its less than about S7 on the K3. I've
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>> > S9+10 signal on my MTR5B is MUCH louder using the same headset as on
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>> > SP.
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>> > - Sidetone is about the same level as a received S9+10 signal - just
>> > comfortable. Also not as loud as on the MTR5B. Sidetone is correctly
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>> > effected by the audio gain pot.
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>> > - I've been over the soldering about 5-6 times, each time touching up
>> > 1-2 solder joints, but with no change. I've also triple checked the
>> > resistors, ICs, etc. that have readable labels to make sure the right
>> > part is in the right place. Can't do anything like that for the Ls and
>> > Cs (except for the torroids, which have the correct turns).
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>> > So, I'm stuck. I haven't been able to isolate where the problem is
>> > coming from. Any advice would be appreciated.
>> >
>> > Tnx es 73,
>> > Randy, KS4L
>>
>>

17796. Re: [AT_Sprint] MTR v2 - Almost no power on 40m

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-22 12:22:09 UTC
From: Dale Putnam
Topic: 17794 Message: 17796

Take a close look at the filter for 40.. the toroids especially. also exercise the band select switches if that hasn't been done yet.

also, could it be the tx isn't seeing 50 ohm for an antenna?

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of kb8log@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Friday, April 21, 2017 11:22 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] MTR v2 - Almost no power on 40m

I've run into a problem with my MTR v2. It's been sitting on the shelf for about a year while I was busy away from radio. I brought it out a couple nights ago and found that the power output on 40m is only about 0.02 watts. Everything looks good on 30m and 20m.

I'm not quite sure where to begin troubleshooting and narrowing down the issue. Any help would be appreciated.

17797. Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-22 12:23:51 UTC
From: Jonathan
Topic: 17788 Message: 17797

☐Sent from TypeApp

On Apr 22, 2017, 01:53, at 01:53, "Camil Staps pd7lol@... [AT_Sprint]"
<AT_Sprint@yahoogroups.com> wrote:
>Thanks for all the data! The broadcasting station is common in audio
>amplifiers; your body acts as an antenna.
>
>There appears to be a problem around the LM386, since the sidetone is
>loud and the AGC does not kick in when you release U2-3. Yes, please
>see
>what happens when you remove Q12. This disables the AGC.
>
>That shorting source and drain of Q17 does not make a difference is
>good. That touching the middle pin does not make a difference is not.
>But I would then expect the middle pin to be grounded - and then
>shorting the other two pins would make a difference. Maybe it is not
>important, so let's look at the LM386 first.
>
>73,
>Camil, PD7LOL
>
>On 22/04/17 00:00, 'Randy Moore' wrmoore47@... [AT_Sprint] wrote:
>> Camil,
>>
>> Thanks for your suggestions!
>>
>> I can't hear the sidetone with the cellphone earbuds 10 cm from my
>ear!
>>
>> It will be tomorrow before I can play with removing Q12, but here's
>what
>> I hear when poking around as you suggested.
>>
>> On the LM386, U2:
>> Pin 2 - VERY loud buzzing
>> Pin 3 - when touching this pin, I hear what sounds like a local
>AM
>> broadcast station (Fox News of all things!). No buzzing at all. This
>> happens whether I'm hooked to the dummy load or an actual antenna!
>>
>> Between C45 and V1, I hear a very low pitched (lower than on U2, Pin
>2)
>> hum that is moderately loud - much quieter than U2, Pin 2. And I
>can't
>> detect any AGC action after releasing the screwdriver touch here.

>> Listening to an actual CW signal, it drops in amplitude a bit when I
>> touch here, then immediately resumes its previous level if I hold the
>> screwdriver there.
>>
>> Before Q17 (pin 7 of U1): I hear a light "tick," then the audio level
>> drops for a fraction of a second, then comes back up. No Buzz.
>> Touching the middle pin of U17 does nothing.
>>
>> Shorting the other 2 pins of U17 does nothing.
>>
>> Can you make anything sense of this???
>>
>> Thanks again!
>>
>> 73,
>> Randy, KS4L
>>
>>
>> ------ Original Message ------
>> From: "Camil Staps pd7lol@... [AT_Sprint]"
>> <AT_Sprint@yahoogroups.com>
>> To: AT_Sprint@yahoogroups.com
>> Sent: 4/21/2017 3:26:40 PM
>> Subject: Re: [AT_Sprint] Soda Pop audio
>>
>>>
>>> If you can get your hands on a scope, we can compare amplitudes on
>>> different points, but I'm assuming this is not an option. Or is the
>DVM
>>> capable of measuring low AC voltages?
>>>
>>> The sidetone should be quite loud. On standard cellphone earplugs, I
>can
>>> still hear it from a metre distance in a quiet environment.
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>>> If the sidetone is also not loud enough, the issue will be in or
>after
>>> the LM386. After building my SP, Q18 was broken. I hadn't statically
>>> discharged before building, which I think was the issue. Q12 is the
>same
>>> part, so it could have gotten broken in the same way. Does something
>>> change if you remove Q12?
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>>> If the sidetone is OK, the issue can still be anywhere between the
>>> antenna and the LM386. You could try to trace back the audio. If you
>>> touch pin 2 or 3 of the LM386 with a metal screwdriver or wire
>connected
>>> to your hand, you should hear a very loud buzzing noise (2 much
>louder
>>> than 3. Again, if this not the case, the issue is in the LM386).

>>> Between C45 and V1 sounds roughly the same as on U2, pin 3 (the AGC
>>> should make the rig silent for about 1s after you release).
>>> Before Q17 (on pin 7 of U1), touching the trace should 'plop' softly
>but
>>> not buzz. Touching the middle pin of Q17 should mute. Shorting the
>two
>>> other pins of Q17 (from U1-7 to C45) disables muting, but should not
>>> make a difference in normal mode.
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>>> 73,
>>> Camil, PD7LOL
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>>> On 21/04/17 20:37, 'Randy Moore' wrmoore47@... [AT_Sprint]
>wrote:
>>> > I'm still trying to figure out why my SP has low audio or low
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>>> > receiver, a DVM, dummy load, and wattmeter, here's what I've
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>>> > coming from. Any advice would be appreciated.
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>>> > Tnx es 73,
>>> > Randy, KS4L
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17798. Re: Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-22 13:59:17 UTC
From: Randy Moore
Topic: 17788 Message: 17798

Camil,

After removing Q12: (summary - only change is that now I hear the same very loud buzzing on both U2-2 and U2-3)

On the LM386, U2:
Pin 2 - VERY loud buzzing - same as before
Pin 3 - Now, I also hear the same loud buzzing as on pin 2, and the broadcast station is much less loud.

Between C45 and V1, same low pitch buzzing, and no AGC action - no change from yesterday.

Before Q17 (pin 7 of U1): Same as yesterday - I hear a light "tick," then the audio level drops for a fraction of a second, then comes back up. No Buzz.
Touching the middle pin of U17 does nothing - same as yesterday

Shorting the other 2 pins of U17 does nothing - same as yesterday

73,
Randy, KS4L
------ Original Message ------
From: "Camil Staps pd7lol@... [AT_Sprint]"
<AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: 4/22/2017 12:35:18 AM
Subject: Re: [AT_Sprint] Soda Pop audio

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>amplifiers; your body acts as an antenna.
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> > <AT_Sprint@yahoogroups.com>
> > To: AT_Sprint@yahoogroups.com
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>
>

17799. Re: MTR v2 - Almost no power on 40m

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-22 14:02:48 UTC
From: jgaffke@...
Topic: 17794 Message: 17799

Sounds like the transmit output filter. Perhaps a cold solder joint on one of the inductors, or an oxidized contact in one of the switches. Should be able to check that out using an ohmmeter.

I assume the rig knows it is in 40m mode, does it somehow tell you through the LED or earphones? (I don't have one.)

Did it work properly a year ago?

Jerry, KE7ER

---In AT_Sprint@yahoogroups.com, <kb8log@...> wrote :

I've run into a problem with my MTR v2. It's been sitting on the shelf for about a year while I was busy away from radio. I brought it out a couple nights ago and found that the power output on 40m is only about 0.02 watts. Everything looks good on 30m and 20m.

I'm not quite sure where to begin troubleshooting and narrowing down the issue. Any help would be appreciated.

17800. ATS 3 and ATS3A

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-22 15:25:51 UTC
From: kc7fys@...
Topic: 17800 Message: 17800

What were these two kits sold for originally?
Thanks,
Jonathan

17801. For Sale: ATS 3 and ATS3A

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-22 21:06:05 UTC
From: kc7fys@...
Topic: 17800 Message: 17801

I have an ATS 3 fully built and tested--and an ATS 3A built except for the toroids on the band modules (parts included). Both are for sale for the original kit price plus shipping. Please contact me OFF-LIST for photos and details. kc7fys-at-yahoo-dot-com
Thank you,
Jonathan W0XO

17802. Soda Pop Calibration Procedure

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-23 02:04:25 UTC
From: kc7fys@...
Topic: 17802 Message: 17802
Attachments: 2 described; binary payloads are missing from this source WARC

I have a question regarding this step of the process:

- Apply power to the board and the display will read [CAL.]
- Connect a frequency counter to TP3 (near the RIT switch)
- Use the tuning encoder to adjust the frequency to exactly 10.000,000 MHz. Tuning is in 1 Hz steps.
- Click the KEYER switch to advance to the BFO adjust mode. The display will now show the IF frequency.
- Connect a Scope to TP2
- Using a small blade screwdriver, adjust the BFO trimmer CT3 to peak the signal.

I am using an older Hitachi V212 oscilloscope and I see the signal increase in amplitude, and then the bottom of the sine wave develops a "fold." (see attachment). I am not sure if the point of maximum amplitude BEFORE this occurs is the peak, or if I am seeing a form of clipping and this is the peak I am looking for. It's hard to explain without looking at the attached sine wave and sine wave with the dimple at the bottom. Which is the peak?

- You can move the Scope to TP1 and tweak the IF LO frequency so that it is centered better in the pass band of the IF crystal filter. Use the tuning encoder to adjust the frequency while looking for a peak in the signal. This should only be done with the aid of a Scope.

What would this look like on the oscilloscope?

Thank you for amplifying this portion of the manual for me. I was shocked when my SodaPop jumped to life--because after getting 95% of the components solder pasted to the top of the board, I actually knocked the board off my workbench! It clattered to the concrete basement floor, and when I picked it up I was amazed to see that every component was in place except for U7! I still can't believe it.
Jonathan

17803. Re: [AT_Sprint] For Sale: ATS 3 and ATS3A

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-23 02:48:43 UTC
From: Jonathan
Topic: 17800 Message: 17803

The 3A is taken. The ATS3 is still available.
Jonathan

☐Sent from TypeApp

On Apr 22, 2017, 16:06, at 16:06, "kc7fys@... [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:
>I have an ATS 3 fully built and tested--and an ATS 3A built except for
>the toroids on the band modules (parts included). Both are for sale for
>the original kit price plus shipping. Please contact me OFF-LIST for
>photos and details. kc7fys-at-yahoo-dot-com
> Thank you,
> Jonathan W0XO

17804. Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-23 08:13:44 UTC
From: Camil Staps
Topic: 17788 Message: 17804

Hi Randy,

That's odd. I suspected the AGC was always-on, limiting the audio to a low level.
Thinking of it, if the LM386 just does not give enough amplification, the AGC never kicks in, which would also explain your data (no AGC between C45 and V1 and low audio).

Do you have a spare LM386 and a breadboard? Then I'd suggest you make the last part of the LF on the breadboard and see if it works there. You don't need to copy the whole circuit, you can leave out the AGC, L1 and C1. On page 8 of the LM386 datasheet [1] there is a basic circuit. On the SP circuit, you can leave out R22, R19, R24, C30, C1, L1, Q11 and Q12. You only need to connect pins 2, 3, 4, 5 and 6 of the LM386.

If you don't have a spare LM386, you may also try to connect a 10uF cap to pin 1 and 8 (+ on 1), similar to figure 13 of the datasheet. This increase gain from 20 to 200. However, if your LM386 is faulty and cannot deliver the 20 it is doubtful if it will deliver 200...

73,
Camil, PD7LOL

[1]: http://www.ti.com/lit/ds/symlink/lm386.pdf

On 22/04/17 15:59, 'Randy Moore' wrmoore47@... [AT_Sprint] wrote:
> Camil,
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>> >> Before Q17 (on pin 7 of U1), touching the trace should 'plop'
>> softly but
>> >> not buzz. Touching the middle pin of Q17 should mute. Shorting the two
>> >> other pins of Q17 (from U1-7 to C45) disables muting, but should not

>> >> make a difference in normal mode.
>> >>
>> >> 73,
>> >> Camil, PD7LOL
>> >>
>> >> On 21/04/17 20:37, 'Randy Moore' wrmoore47@... [AT_Sprint]
>> wrote:
>> >> > I'm still trying to figure out why my SP has low audio or low
>> >> > sensitivity. Lacking any real test equipment, other than another
>> >> > receiver, a DVM, dummy load, and wattmeter, here's what I've
>> learned.
>> >> > (The SP is built for 40m.)
>> >> >
>> >> > - Transmitter output with about 13v from the power supply is
>> around 4w,
>> >> > and the signal sounds very clean in my other receivers. So the
>> >> circuitry
>> >> > that's common to both rx and tx should be ok.
>> >> >
>> >> > - With full audio gain (the gain control works fine) a signal that I
>> >> > receive on my K3 at S9+10 is just comfortably loud in the SP. I
>> can't
>> >> > hear anything on the SP if its less than about S7 on the K3. I've
>> >> > checked with 2-3 headsets that work just fine on other receivers. An
>> >> > S9+10 signal on my MTR5B is MUCH louder using the same headset as on
>> >> the
>> >> > SP.
>> >> >
>> >> > - Sidetone is about the same level as a received S9+10 signal - just
>> >> > comfortable. Also not as loud as on the MTR5B. Sidetone is correctly
>> >> not
>> >> > effected by the audio gain pot.
>> >> >
>> >> > - I've been over the soldering about 5-6 times, each time
>> touching up
>> >> > 1-2 solder joints, but with no change. I've also triple checked the
>> >> > resistors, ICs, etc. that have readable labels to make sure the
>> right
>> >> > part is in the right place. Can't do anything like that for the
>> Ls and
>> >> > Cs (except for the torroids, which have the correct turns).
>> >> >
>> >> > So, I'm stuck. I haven't been able to isolate where the problem is
>> >> > coming from. Any advice would be appreciated.
>> >> >
>> >> > Tnx es 73,
>> >> > Randy, KS4L
>> >>
>> >>
>>

>>

17805. Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-23 09:00:26 UTC
From: hb9bqb@...
Topic: 17788 Message: 17805

Dear Camil I also think the audio in the SP is far too low. What do you propose? Add 10uF on pin 1 or omit the AGC?

My experience with the ATS-4a (no AGC) and ATS-4b (good AGC) is that ACG is a need. When am activating a SOTA Mountain and some people came up on the same hill near me and using their smartphone you hear a nasty digital sound and without AGC... beware your ears!

73, Guido
HB9BQB

17806. Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-23 09:16:49 UTC
From: Camil Staps
Topic: 17788 Message: 17806

With Randy KS4L there seems to be an issue with the board, because his sidetone is weaker than mine. Is that the case with you too? Then it's better to try and investigate the issue first, by poking and tracing the audio signal back from the LM386. In my mail of April 21st I write where you should hear what sound. Adding 10uF between pin 1 and 8 and removing the AGC were still part of the debugging process: removing the AGC because I thought it was always-on, and adding 10uF because it may be that the LM386 does not amplify enough. However, if the latter is the case, building a simple LM386 amplifier (without AGC) on a breadboard is preferable over the 10uF cap.

If your SP works properly but you'd just like a louder signal, yes, you can experiment with the 10uF cap. On my SP, this increases the volume considerably. It may be that the AGC kicks in too soon. Q11 is biased by R22 and R19, the output signal of the LM386 further changes the base voltage s.t. when the signal is loud, Q12 will lower the input signal (if I understand it correctly..).
By increasing the output volume, the AGC will kick in earlier, so you'd have to increase R22 / decrease R19 to lower the bias on Q11.

73,
Camil, PD7LOL

On 23/04/17 11:00, hb9bqb@... [AT_Sprint] wrote:
>
>
> Dear Camil I also think the audio in the SP is far too low. What do you propose? Add 10uF on pin 1 or omit the AGC?
>
> My experience with the ATS-4a (no AGC) and ATS-4b (good AGC) is that ACG is a need. When am activating a SOTA Mountain and some people came up on the same hill near me and using their smartphone you hear a nasty digital sound and without AGC... beware your ears!
>
>
> 73, Guido
> HB9BQB
>

17807. Re: SODA POP source code (+ rotary encoder fix)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-23 13:35:02 UTC
From: hb9bqb@...
Topic: 17715 Message: 17807

Hi Camil

I am interested in experimenting with the SP firmware.I dont know if I have understand the programming process. You take the chip from the SP and insert it into the arduino board (if it has a socket for the processor) and load the new firmware with the arduino SW tools to the chip? Is this right?
Thank you
73, Guido
HB9BQB

17808. Re: [AT_Sprint] Re: SODA POP source code (+ rotary encoder fix)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-23 13:38:50 UTC
From: Camil Staps
Topic: 17715 Message: 17808

If you only want to flash a new version once or a few times, yes, that
is the easiest way.

If you want to develop new firmware, this process gets annoying and you
don't want to move the chip back and forth often, as the pins may break.
It is then easier to add a 4-pin header to the SP board, that connects
to an Arduino Uno with an empty socket. This is shown here:
https://github.com/camilstaps/SODA-POP-source#how-to-flash-the-firmware

In both cases, you use the Arduino IDE, set the board to Arduino Uno and
flash using the upload button or Ctrl-U.

Let me know if you experience any difficulties. Needless to say that
we're all very interested in your developments!

73,
Camil, PD7LOL

On 23/04/17 15:35, hb9bqb@... [AT_Sprint] wrote:
> Hi Camil
>
> I am interested in experimenting with the SP firmware.I dont know if I have understand
the programming process. You take the chip from the SP and insert it into the arduino board
(if it has a socket for the processor) and load the new firmware with the arduino SW tools
to the chip? Is this right?
> Thank you
> 73, Guido
> HB9BQB
>

17809. Re: [AT_Sprint] Re: SODA POP source code (+ rotary encoder fix)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-23 17:10:29 UTC
From: ut0um@...
Topic: 17715 Message: 17809

easiest way is reconnect paddle to RX TX pins of atmega and flash by 3.5 Jack connected to USB TTL converter or to 0 and 1 pins of another arduino

17810. Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-23 20:42:49 UTC
From: Randy Moore
Topic: 17788 Message: 17810

Camil,

I don't have another LM386, so I think I'll order one. Steve doesn't give the full part number, so I'd appreciate it if someone could give me the part number that I can look up on Mouser or Digikey.

My troubleshooting skills and tools for these little rigs are highly limited. I've always gotten them to work by being very careful in their construction. That's not enough here!

Camil, I was looking at your firmware changes and may try to load your code if I can get this little guy to work right! I particularly would like to have the code speed retained on power cycling. Also, as an alternative to choosing an initial frequency in the code, it might be nice to store the last used frequency and start up there on next power on. DFE would be nice too, although using the selection of various tuning steps is probably adequate.

73,
Randy, KS4L

> On Apr 23, 2017, at 3:13 AM, Camil Staps pd7lol@... [AT_Sprint]
<AT_Sprint@yahoogroups.com> wrote:
>
> Hi Randy,
>
> That's odd. I suspected the AGC was always-on, limiting the audio to a
> low level.
> Thinking of it, if the LM386 just does not give enough amplification,
> the AGC never kicks in, which would also explain your data (no AGC
> between C45 and V1 and low audio).
>
> Do you have a spare LM386 and a breadboard? Then I'd suggest you make
> the last part of the LF on the breadboard and see if it works there.
> You don't need to copy the whole circuit, you can leave out the AGC, L1
> and C1. On page 8 of the LM386 datasheet [1] there is a basic circuit.
> On the SP circuit, you can leave out R22, R19, R24, C30, C1, L1, Q11 and
> Q12. You only need to connect pins 2, 3, 4, 5 and 6 of the LM386.
>
> If you don't have a spare LM386, you may also try to connect a 10uF cap
> to pin 1 and 8 (+ on 1), similar to figure 13 of the datasheet. This
> increase gain from 20 to 200. However, if your LM386 is faulty and
> cannot deliver the 20 it is doubtful if it will deliver 200...
>
> 73,
> Camil, PD7LOL
>
> [1]: http://www.ti.com/lit/ds/symlink/lm386.pdf

>
> On 22/04/17 15:59, 'Randy Moore' wrmoore47@gmail.com [AT_Sprint] wrote:
> > Camil,
> >
> > After removing Q12: (summary - only change is that now I hear the same
> > very loud buzzing on both U2-2 and U2-3)
> >
> > On the LM386, U2:
> > Pin 2 - VERY loud buzzing - same as before
> > Pin 3 - Now, I also hear the same loud buzzing as on pin 2, and the
> > broadcast station is much less loud.
> >
> > Between C45 and V1, same low pitch buzzing, and no AGC action - no
> > change from yesterday.
> >
> > Before Q17 (pin 7 of U1): Same as yesterday - I hear a light "tick,"
> > then the audio level drops for a fraction of a second, then comes back
> > up. No Buzz.
> > Touching the middle pin of U17 does nothing - same as yesterday
> >
> > Shorting the other 2 pins of U17 does nothing - same as yesterday
> >
> > 73,
>
>

17811. Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-23 22:00:49 UTC
From: Jonathan
Topic: 17788 Message: 17811

I'm with Randy. Generally speaking, you have to meticulously assemble one of Steve's rigs and put most of your time into the construction, because if you make a mistake God help you trying to find the problem.
W0XO
☐Sent from TypeApp

On Apr 23, 2017, 3:42 PM, at 3:42 PM, "Randy Moore wrmoore47@... [AT_Sprint]"
<AT_Sprint@yahoogroups.com> wrote:
>Camil,
>
>I don't have another LM386, so I think I'll order one. Steve doesn't
>give the full part number, so I'd appreciate it if someone could give
>me the part number that I can look up on Mouser or Digikey.
>
>My troubleshooting skills and tools for these little rigs are highly
>limited. I've always gotten them to work by being very careful in their
>construction. That's not enough here!
>
>Camil, I was looking at your firmware changes and may try to load your
>code if I can get this little guy to work right! I particularly would
>like to have the code speed retained on power cycling. Also, as an
>alternative to choosing an initial frequency in the code, it might be
>nice to store the last used frequency and start up there on next power
>on. DFE would be nice too, although using the selection of various
>tuning steps is probably adequate.
>
>73,
>Randy, KS4L
>
>> On Apr 23, 2017, at 3:13 AM, Camil Staps pd7lol@...
>[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>>
>> Hi Randy,
>>
>> That's odd. I suspected the AGC was always-on, limiting the audio to
>a
>> low level.
>> Thinking of it, if the LM386 just does not give enough amplification,
>> the AGC never kicks in, which would also explain your data (no AGC
>> between C45 and V1 and low audio).
>>
>> Do you have a spare LM386 and a breadboard? Then I'd suggest you make
>> the last part of the LF on the breadboard and see if it works there.
>> You don't need to copy the whole circuit, you can leave out the AGC,
>L1
>> and C1. On page 8 of the LM386 datasheet [1] there is a basic

>circuit.
>> On the SP circuit, you can leave out R22, R19, R24, C30, C1, L1, Q11
>and
>> Q12. You only need to connect pins 2, 3, 4, 5 and 6 of the LM386.
>>
>> If you don't have a spare LM386, you may also try to connect a 10uF
>cap
>> to pin 1 and 8 (+ on 1), similar to figure 13 of the datasheet. This
>> increase gain from 20 to 200. However, if your LM386 is faulty and
>> cannot deliver the 20 it is doubtful if it will deliver 200...
>>
>> 73,
>> Camil, PD7LOL
>>
>> [1]: http://www.ti.com/lit/ds/symlink/lm386.pdf
>>
>> On 22/04/17 15:59, 'Randy Moore' wrmoore47@... [AT_Sprint]
>wrote:
>> > Camil,
>> >
>> > After removing Q12: (summary - only change is that now I hear the
>same
>> > very loud buzzing on both U2-2 and U2-3)
>> >
>> > On the LM386, U2:
>> > Pin 2 - VERY loud buzzing - same as before
>> > Pin 3 - Now, I also hear the same loud buzzing as on pin 2, and the
>> > broadcast station is much less loud.
>> >
>> > Between C45 and V1, same low pitch buzzing, and no AGC action - no
>> > change from yesterday.
>> >
>> > Before Q17 (pin 7 of U1): Same as yesterday - I hear a light
>"tick,"
>> > then the audio level drops for a fraction of a second, then comes
>back
>> > up. No Buzz.
>> > Touching the middle pin of U17 does nothing - same as yesterday
>> >
>> > Shorting the other 2 pins of U17 does nothing - same as yesterday
>> >
>> > 73,
>>
>>

17812. Re: Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-24 00:15:04 UTC
From: Steve Saslow
Topic: 17788 Message: 17812

Just off the live chat and 'phone with Digikey: to match the SP LM386 I have, including almost all the markings on to of it: = digikey part nr 296-44413-5-ND. an 8-pin SOIC package, no lead/environmental...one costs $1.02...hope this helps!

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Jonathan kc7fys@...m [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Sunday, April 23, 2017 3:00 PM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Soda Pop audio

I'm with Randy. Generally speaking, you have to meticulously assemble one of Steve's rigs and put most of your time into the construction, because if you make a mistake God help you trying to find the problem.
W0XO
Sent from TypeApp<http://www.typeapp.com/r?b=9522>
On Apr 23, 2017, at 3:42 PM, "Randy Moore wrmoore47@... [AT_Sprint]" <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

Camil,

I don't have another LM386, so I think I'll order one. Steve doesn't give the full part number, so I'd appreciate it if someone could give me the part number that I can look up on Mouser or Digikey.

My troubleshooting skills and tools for these little rigs are highly limited. I've always gotten them to work by being very careful in their construction. That's not enough here!

Camil, I was looking at your firmware changes and may try to load your code if I can get this little guy to work right! I particularly would like to have the code speed retained on power cycling. Also, as an alternative to choosing an initial frequency in the code, it might be nice to store the last used frequency and start up there on next power on. DFE would be nice too, although using the selection of various tuning steps is probably adequate.

73,
Randy, KS4L

On Apr 23, 2017, at 3:13 AM, Camil Staps pd7lol@...<mailto:pd7lol@camilstaps.nl> [AT_Sprint] < AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

Hi Randy,

That's odd. I suspected the AGC was always-on, limiting the audio to a
low level.
Thinking of it, if the LM386 just does not give enough amplification,
the AGC never kicks in, which would also explain your data (no AGC

between C45 and V1 and low audio).

Do you have a spare LM386 and a breadboard? Then I'd suggest you make
the last part of the LF on the breadboard and see if it works there.
You don't need to copy the whole circuit, you can leave out the AGC, L1
and C1. On page 8 of the LM386 datasheet [1] there is a basic circuit.
On the SP circuit, you can leave out R22, R19, R24, C30, C1, L1, Q11 and
Q12. You only need to connect pins 2, 3, 4, 5 and 6 of the LM386.

If you don't have a spare LM386, you may also try to connect a 10uF cap
to pin 1 and 8 (+ on 1), similar to figure 13 of the datasheet. This
increase gain from 20 to 200. However, if your LM386 is faulty and
cannot deliver the 20 it is doubtful if it will deliver 200...

73,
Camil, PD7LOL

[1]: http://www.ti.com/lit/ds/symlink/lm386.pdf

On 22/04/17 15:59, 'Randy Moore' wrmoore47@...<mailto:wrmoore47@gmail.com> [AT_Sprint]
wrote:
> Camil,
>
> After removing Q12: (summary - only change is that now I hear the same
> very loud buzzing on both U2-2 and U2-3)
>
> On the LM386, U2:
> Pin 2 - VERY loud buzzing - same as before
> Pin 3 - Now, I also hear the same loud buzzing as on pin 2, and the
> broadcast station is much less loud.
>
> Between C45 and V1, same low pitch buzzing, and no AGC action - no
> change from yesterday.
>
> Before Q17 (pin 7 of U1): Same as yesterday - I hear a light "tick,"
> then the audio level drops for a fraction of a second, then comes back
> up. No Buzz.
> Touching the middle pin of U17 does nothing - same as yesterday
>
> Shorting the other 2 pins of U17 does nothing - same as yesterday
>
> 73,

17813. Re: Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-24 01:02:55 UTC
From: Randy Moore
Topic: 17788 Message: 17813

Thanks Steve!

73,
Randy

On Apr 23, 2017 7:15 PM, "Steve Saslow k7ew@hotmail.com [AT_Sprint]" <
AT_Sprint@yahoogroups.com> wrote:

>
>
> Just off the live chat and 'phone with Digikey: to match the SP LM386 I
> have, including almost all the markings on to of it: = digikey part nr
> 296-44413-5-ND. an 8-pin SOIC package, no lead/environmental...one costs
> $1.02...hope this helps!
>
>
> ------------------------------
> *From:* AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf
> of Jonathan kc7fys@yahoo.com [AT_Sprint] <AT_Sprint@yahoogroups.com>
> *Sent:* Sunday, April 23, 2017 3:00 PM
> *To:* AT_Sprint@yahoogroups.com
> *Subject:* Re: [AT_Sprint] Soda Pop audio
>
>
>
> I'm with Randy. Generally speaking, you have to meticulously assemble one
> of Steve's rigs and put most of your time into the construction, because if
> you make a mistake God help you trying to find the problem.
> W0XO
> Sent from TypeApp <http://www.typeapp.com/r?b=9522>
> On Apr 23, 2017, at 3:42 PM, "Randy Moore wrmoore47@...
> [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:
>>
>>
>>
>> Camil,
>>
>> I don't have another LM386, so I think I'll order one. Steve doesn't give
>> the full part number, so I'd appreciate it if someone could give me the
>> part number that I can look up on Mouser or Digikey.
>>
>> My troubleshooting skills and tools for these little rigs are highly
>> limited. I've always gotten them to work by being very careful in their
>> construction. That's not enough here!
>>
>> Camil, I was looking at your firmware changes and may try to load your

>> code if I can get this little guy to work right! I particularly would like
>> to have the code speed retained on power cycling. Also, as an alternative
>> to choosing an initial frequency in the code, it might be nice to store the
>> last used frequency and start up there on next power on. DFE would be nice
>> too, although using the selection of various tuning steps is probably
>> adequate.
>>
>> 73,
>> Randy, KS4L
>>
>> On Apr 23, 2017, at 3:13 AM, Camil Staps pd7lol@...
>> [AT_Sprint] < AT_Sprint@yahoogroups.com> wrote:
>>
>>
>>
>> Hi Randy,
>>
>> That's odd. I suspected the AGC was always-on, limiting the audio to a
>> low level.
>> Thinking of it, if the LM386 just does not give enough amplification,
>> the AGC never kicks in, which would also explain your data (no AGC
>> between C45 and V1 and low audio).
>>
>> Do you have a spare LM386 and a breadboard? Then I'd suggest you make
>> the last part of the LF on the breadboard and see if it works there.
>> You don't need to copy the whole circuit, you can leave out the AGC, L1
>> and C1. On page 8 of the LM386 datasheet [1] there is a basic circuit.
>> On the SP circuit, you can leave out R22, R19, R24, C30, C1, L1, Q11 and
>> Q12. You only need to connect pins 2, 3, 4, 5 and 6 of the LM386.
>>
>> If you don't have a spare LM386, you may also try to connect a 10uF cap
>> to pin 1 and 8 (+ on 1), similar to figure 13 of the datasheet. This
>> increase gain from 20 to 200. However, if your LM386 is faulty and
>> cannot deliver the 20 it is doubtful if it will deliver 200...
>>
>> 73,
>> Camil, PD7LOL
>>
>> [1]: http://www.ti.com/lit/ds/symlink/lm386.pdf
>>
>> On 22/04/17 15:59, 'Randy Moore' wrmoore47@... [AT_Sprint] wrote:
>> > Camil,
>> >
>> > After removing Q12: (summary - only change is that now I hear the same
>> > very loud buzzing on both U2-2 and U2-3)
>> >
>> > On the LM386, U2:
>> > Pin 2 - VERY loud buzzing - same as before
>> > Pin 3 - Now, I also hear the same loud buzzing as on pin 2, and the
>> > broadcast station is much less loud.

>> >
>> > Between C45 and V1, same low pitch buzzing, and no AGC action - no
>> > change from yesterday.
>> >
>> > Before Q17 (pin 7 of U1): Same as yesterday - I hear a light "tick,"
>> > then the audio level drops for a fraction of a second, then comes back
>> > up. No Buzz.
>> > Touching the middle pin of U17 does nothing - same as yesterday
>> >
>> > Shorting the other 2 pins of U17 does nothing - same as yesterday
>> >
>> > 73,
>>
>>
>

17814. Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-24 05:17:37 UTC
From: Camil Staps
Topic: 17788 Message: 17814

The part numbers of the LM386 are not very tedious. I'd take a through-hole one, to experiment on a breadboard. Then you can take LM3866N-1. The N-3 and N-4 give some more gain, but in this case we are using only 20 gain (not 200), so it should be fine with the N-1 as well. If you want SOIC, see Steve's mail.

With the same Steve K7EW I discussed the option of storing the last frequency in EEPROM as well. At first, I was reluctant, because the EEPROM has 100,000 write cycles, so it wouldn't be a good idea to write at every tuning step. Then you would be limited to put storing the frequency in a menu, which would not be easy to use. However, what we can also do is storing it after 2s (e.g.) of inactivity. I added it to the todo list: https://github.com/camilstaps/SODA-POP-source/issues/17. The coming week I'm on short holidays (trying out the SP, if weather allows), after that I may try to implement it.

Storing the code speed, DFE and various tuning steps has been implemented already.

73,
Camil, PD7LOL

On 23/04/17 22:42, Randy Moore wrmoore47@... [AT_Sprint] wrote:
> Camil,
>
> I don't have another LM386, so I think I'll order one. Steve doesn't give the full part number, so I'd appreciate it if someone could give me the part number that I can look up on Mouser or Digikey.
>
> My troubleshooting skills and tools for these little rigs are highly limited. I've always gotten them to work by being very careful in their construction. That's not enough here!
>
> Camil, I was looking at your firmware changes and may try to load your code if I can get this little guy to work right! I particularly would like to have the code speed retained on power cycling. Also, as an alternative to choosing an initial frequency in the code, it might be nice to store the last used frequency and start up there on next power on. DFE would be nice too, although using the selection of various tuning steps is probably adequate.
>
> 73,
> Randy, KS4L

17815. Re: [AT_Sprint] Re: SODA POP source code (+ rotary encoder fix)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-24 05:19:34 UTC
From: Camil Staps
Topic: 17715 Message: 17815

Does that really work for you? I cannot get it to work without the RESET
pin (1 on the chip).

73,
Camil, PD7LOL

On 23/04/17 19:10, ut0um@... [AT_Sprint] wrote:
> easiest way is reconnect paddle to RX TX pins of atmega and flash by 3.5 Jack connected to USB TTL converter or to 0 and 1 pins of another arduino
>

17816. Re: [AT_Sprint] Re: SODA POP source code (+ rotary encoder fix)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-24 09:59:45 UTC
From: Alexey Yermolayev
Topic: 17715 Message: 17816

i do reset by turn off/on when starting upload

On Monday, April 24, 2017 8:20 AM, "Camil Staps pd7lol@... [AT_Sprint]"
<AT_Sprint@yahoogroups.com> wrote:

  Does that really work for you? I cannot get it to work without the RESET
pin (1 on the chip).

73,
Camil, PD7LOL

On 23/04/17 19:10, ut0um@... [AT_Sprint] wrote:
> easiest way is reconnect paddle to RX TX pins of atmega and flash by 3.5 Jack connected
to USB TTL converter or to 0 and 1 pins of another arduino
>

17817. Re: [AT_Sprint] For Sale: ATS 3 and ATS3A

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-24 18:08:12 UTC
From: kc7fys@...
Topic: 17800 Message: 17817

Both rigs have been taken. Thanks.
Jonathan W0XO

17818. Re: [AT_Sprint] Re: SP Calibration 10 MHz unstable for me

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-24 19:30:40 UTC
From: John Sutter
Topic: 17782 Message: 17818

I get the same results with good lab bench supplies, a 13.8 V supply,
and batteries.
I see the same waveform on my 1GHz, 500MHz, and 100MHz scopes depending on
which bench I'm at.

I had a few 25 MHz crystals on hand with about the same footprint so I
tried swapping
in one of those with no change.

I did add configuration writes for the spectrum spreading registers on
the Si5351A
but that didn't change the behavior either.

By chance, I had ordered an Adafruit Si5351A breakout board last week
that should arrive this
afternoon. I'll pop the Si5351A off that and try it this evening.

- John
W1JDS

17819. RE: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-24 18:49:25 UTC
From: Fred Maas
Topic: 17788 Message: 17819

I bought spare LM386's on eBay, had to wait a while from China, but able to buy them very inexpensively.

Fred KT5X

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Sunday, April 23, 2017 2:43 PM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Soda Pop audio

Camil,

I don't have another LM386, so I think I'll order one. Steve doesn't give the full part number, so I'd appreciate it if someone could give me the part number that I can look up on Mouser or Digikey.

My troubleshooting skills and tools for these little rigs are highly limited. I've always gotten them to work by being very careful in their construction. That's not enough here!

Camil, I was looking at your firmware changes and may try to load your code if I can get this little guy to work right! I particularly would like to have the code speed retained on power cycling. Also, as an alternative to choosing an initial frequency in the code, it might be nice to store the last used frequency and start up there on next power on. DFE would be nice too, although using the selection of various tuning steps is probably adequate.

73,

Randy, KS4L

17820. Re: [AT_Sprint] Re: SODA POP source code (+ rotary encoder fix)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-25 11:29:41 UTC
From: hb9bqb@...
Topic: 17715 Message: 17820

Camil

Cool! Congrats to your super job with the improved SP firmware and the dokumentation on the github!
I will try but must first buy e Arduino with a inline processor.
Thank you very much.
73, Guido
HB9BQB

17821. Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-25 11:33:54 UTC
From: hb9bqb@...
Topic: 17788 Message: 17821

Camil
Changing the LM386 from gain 20 to gain 200 is effective only if you also change the AGC threshold as you proposed.
73, Guido
HB9BQB

17822. Re: [AT_Sprint] Re: SP Calibration 10 MHz unstable for me

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-25 06:55:18 UTC
From: John Sutter
Topic: 17782 Message: 17822

I replaced the Si5351A with the one from the Adafruit board tonight and it is now stable.

I was seeing a little thermal drift, about 1 Hz every few minutes. If I get a chance I'll let it sit
for a while to see how long it takes to stop moving.

Next step is the BFO adjustment which wasn't budging no matter what I did. Then I noticed that my son hadn't installed L1, L2, or L5. Unfortunately they weren't in the tray anymore, so it sounds like I'll have to stop by the parts store tomorrow morning.

- John
W1JDS

On 4/24/2017 12:30 PM, John Sutter jds@... [AT_Sprint] wrote:

I get the same results with good lab bench supplies, a 13.8 V supply,
and batteries.
I see the same waveform on my 1GHz, 500MHz, and 100MHz scopes depending on
which bench I'm at.

I had a few 25 MHz crystals on hand with about the same footprint so I
tried swapping
in one of those with no change.

I did add configuration writes for the spectrum spreading registers on
the Si5351A
but that didn't change the behavior either.

By chance, I had ordered an Adafruit Si5351A breakout board last week
that should arrive this
afternoon. I'll pop the Si5351A off that and try it this evening.

- John
W1JDS

17823. Re: [AT_Sprint] Re: SP Calibration 10 MHz unstable for me

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-25 15:27:01 UTC
From: jgaffke@...
Topic: 17782 Message: 17823

Even crystal oscillators move a bit with temperature. If it bugs you for some reason, could easily and cheaply add a TCXO such as NT7S has available for his Etherkit Si5351 breakout board.

Next stop would be to use the third channel of the Si5351 to send 1mhz (or less) into a counter-timer on the processor, and have a cheap GPS module sending a pulse-per-second signal in also. Periodically check how well those counts agree and adjust the Si5351 registers accordingly.

I wouldn't feel the need to give anybody a reason. A hobby unto itself.

Jerry, KE7ER

---In AT_Sprint@yahoogroups.com, <jds@...> wrote : I was seeing a little thermal drift, about 1 Hz every few minutes. If I get a chance I'll let it sit
for a while to see how long it takes to stop moving.

17824. FS: Unbuilt ATS-3A

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-25 17:59:36 UTC
From: mauiqrp@...
Topic: 17824 Message: 17824

I have several unbuilt kits that I will be selling over the next few weeks. The first is an unbuilt ATS-3A. I can't find exactly how much I paid for it, but there is a review on eHam that suggests $155 was the base price. So I'll list it at $155 plus shipping - stateside only. If you have any questions, please respond privately to mauiqrp at yahoo dot com. I thought I would list it here first before going to the 'Bay.

17825. Re: [AT_Sprint] Re: SP Calibration 10 MHz unstable for me

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-25 20:31:55 UTC
From: John Sutter
Topic: 17782 Message: 17825

Gotta get it working first :-). I found the parts last night at home, put them in, but the turning
CT3 didn't result in any changes at TP2. I'm getting a signal on the gate of Q8, but it looks like
Q6 isn't getting turned on. I'm thinking I need to check component values around Q13/Q14. Is it the signal from U5 pin 10 (clock 0) that is supposed to be driven through the filter? Without R29, it would be just leakage.

My company makes wireless display tags/price labels for grocery stores and department stores.
I made a factory test/calibrate/provision fixture. I used an ASVTX-09-16.000MHZ-T VCTCXO on the PCB and it worked great for me. If only I'd had the foresight to use 25MHz. I'll find some
use for them though..

25MHz VCTCXOs are pricey, though TCXOs aren't too bad. Must resist. Must finish old projects...

- John
W1JDS

On 4/25/2017 8:27 AM, jgaffke@... [AT_Sprint] wrote:

Even crystal oscillators move a bit with temperature. If it bugs you for some reason, could easily and cheaply add a TCXO such as NT7S has available for his Etherkit Si5351 breakout board.

Next stop would be to use the third channel of the Si5351 to send 1mhz (or less) into a counter-timer on the processor, and have a cheap GPS module sending a pulse-per-second signal in also. Periodically check how well those counts agree and adjust the Si5351 registers accordingly.

I wouldn't feel the need to give anybody a reason. A hobby unto itself.

Jerry, KE7ER

---In AT_Sprint@yahoogroups.com, wrote :

I was seeing a little thermal drift, about 1 Hz every few minutes. If I get a chance I'll let it sit
for a while to see how long it takes to stop moving.

17826. Re: [AT_Sprint] Re: SP Calibration 10 MHz unstable for me

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-26 17:20:48 UTC
From: jgaffke@...
Topic: 17782 Message: 17826

You could likely use that 16mhz oscillator as a reference for an Si5351.
The Si5351C in the 20pin QFN accepts an external clock anywhere between 10mhz and 100mhz, if over 40mhz it must use CLKIN_DIV to bring the PLL reference down between 10mhz and 40mhz.

The Si5351A in the 10 pin MSOP used on Steve's rig says it wants a crystal between 25 and 27mhz.
But the Etherkit breakout board has an option to drive it with an external 25mhz TCXO.
I'd bet the 25-27 mhz restriction is there just to get the interal crystal oscillator going,
and that you could drive one of those crystal pins with anything between 10 and 40 mhz.

OK, now I'll go off the deep end here, you may quit reading if not interested in really precise
control of the Si5351 frequency.

As previously suggested we could discipline an Si5351 (A or C) using the pulse-per-second output
from a GPS receiver. Assume one of the 3 outputs from the Si5351 is set to 10mhz, and that 10mhz drives a 16 bit freerunning counter-timer inside the microcontroller that is used to program the Si5351 I2C port. The counter-timer is programmed to be free-running, rolling over
back to zero when it reaches a count of 9999. So the counter-timer is rolling over at a rate
of 10mhz/10000, or once each millisecond. The pps from the GPS goes into the microcontroller
to capture the current 16 bit count once each second. If the 10mhz were exactly on frequency,
the 16 bit count should be exactly the same on each capture. The microcontroller reads that 16 bit count and see by how much and in which direction it is moving, and periodically adjusts
the Si5351 registers to minimize that movement. So basically huff-and-puff stablization,
with counter and counter-capture and oscillator correction all implemented inside
a $0.50 microcontroller.

The counter timer on a Mega328P is not ideal for this, though could work well enough.
It has a max count rate of a mhz or two, and counter increments and captures are resynced to the processor clock before being applied to the counter. Some of the MSP430's might be better suited.

Jerry, KE7ER

---In AT_Sprint@yahoogroups.com, <jds@...> wrote :

Gotta get it working first :-). I found the parts last night at home, put them in, but the turning
CT3 didn't result in any changes at TP2. I'm getting a signal on the gate of Q8, but it

looks like
Q6 isn't getting turned on. I'm thinking I need to check component values around Q13/Q14. Is it the signal from U5 pin 10 (clock 0) that is supposed to be driven through the filter? Without R29, it would be just leakage.

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use for them though..

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- John
W1JDS

On 4/25/2017 8:27 AM, jgaffke@... mailto:jgaffke@... [AT_Sprint] wrote:

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Next stop would be to use the third channel of the Si5351 to send 1mhz (or less) into a counter-timer on the processor, and have a cheap GPS module sending a pulse-per-second signal in also. Periodically check how well those counts agree and adjust the Si5351 registers accordingly.

I wouldn't feel the need to give anybody a reason. A hobby unto itself.

Jerry, KE7ER

---In AT_Sprint@yahoogroups.com mailto:AT_Sprint@yahoogroups.com, <jds@...> mailto:jds@... wrote : I was seeing a little thermal drift, about 1 Hz every few minutes. If I get a chance I'll let it sit
for a while to see how long it takes to stop moving.

17827. Re: [AT_Sprint] Re: SP Calibration 10 MHz unstable for me

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-26 19:25:14 UTC
From: jgaffke@...
Topic: 17782 Message: 17827

Further discussion of this GPS stuff should probably move to the EMRFD yahoo group, check out this thread started by F2DC: 13814Simple and low cost GPS controlled oscillator

Looks like he has it working rather nicely, and well characterized

Jerry

---In AT_Sprint@yahoogroups.com, <jgaffke@...> wrote : As previously suggested we could discipline an Si5351 (A or C) using the pulse-per-second output
from a GPS receiver.

17828. Re: Re: Re: [AT_Sprint] Soda Pop audio

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-26 23:45:53 UTC
From: Randy Moore
Topic: 17788 Message: 17828

Well, if you've been waiting with baited breath for the result of me swapping out the SP LM386 - no change! Got the TI version of the SO-8 LM386 from Mouser and just installed it. All symptoms remain the same, so its not the 386.

It looked like it might be the LM386 because the sidetone is weak as well as signals. But I was suspicious because signals that read S7 on my K3 are not audible at all on the SP, so I thought the issue might be earlier in the receive chain. Looks like it might be.

Any other recommendations? I wish I had some better instrumentation, but that's not going to happen any time soon...

73,
Randy, KS4L
>>

17829. Sodapop Kit.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-27 11:44:10 UTC
From: m.r.johnson4715@...
Topic: 17829 Message: 17829

Am i the only one still waiting for my kit to arrive ?
73 Mike g0bpu

17830. Re: Sodapop Kit.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-27 14:08:50 UTC
From: colin.evans2@...
Topic: 17829 Message: 17830

No Mike,

There's a handful of us UK hams still missing our kits. They ended up in Australia, New South Wales to be precise.

I know of at least five missing kits.

Sorry to be the bearer of bad news.

73, Colin M1BUU

17831. Re: Sodapop Kit.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-27 14:47:34 UTC
From: Michael
Topic: 17829 Message: 17831

Thanks for the info Colin, with luck they will arrive soon.
73 Mike g0bpu

17832. Re: Sodapop Kit.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-28 14:58:28 UTC
From: dl2arl@...
Topic: 17829 Message: 17832

"They ended up in Australia, New South Wales to be precise"..

...that makes them to real, big travelled and well-proven DX Rigs with a long story to tell!

;-)))

Having traveled all the way round, they will, later on the band, know the smell of DX from their own experience and not only from hearsay or dx-cluster!

Enjoy!
73, Razvan DL2ARL

17833. FS: LNR MTR3

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-28 17:17:47 UTC
From: mst72481@...
Topic: 17833 Message: 17833
Attachments: 1 described; binary payloads are missing from this source WARC

Hi all,
I bought this radio from LNR in 2015, used it for my (so far) only SOTA activation on 8/2/2015. It has been sitting since. I plan on using 20 meters exclusively on future SOTA activations and I got a Soda Pop so I can send the MTR on to a home where she will get used.

Asking $200 shipped in the US. If interested simply reply to this thread, I get so many Yahoo Group emails my inbox is basically a spam folder. I should probably go through my subscriptions and fix that one of these days...

Thanks for looking!
Michael N6MST (formerly KJ6DRG)

17834. Re: [AT_Sprint] FS: LNR MTR3 [1 Attachment]

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-28 21:27:01 UTC
From: Sean Waite
Topic: 17833 Message: 17834

Hi, my friend is interested. He is included on this reply.

Sean WA1TE

On Fri, Apr 28, 2017, 13:32 mst72481@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
> [Attachment(s) <#m_-6395022369223521461_TopText> from mst72481@...
> [AT_Sprint] included below]
>
> Hi all,
>
> I bought this radio from LNR in 2015, used it for my (so far) only SOTA
> activation on 8/2/2015. It has been sitting since. I plan on using 20
> meters exclusively on future SOTA activations and I got a Soda Pop so I can
> send the MTR on to a home where she will get used.
>
>
> Asking $200 shipped in the US. If interested simply reply to this thread,
> I get so many Yahoo Group emails my inbox is basically a spam folder. I
> should probably go through my subscriptions and fix that one of these
> days...
>
>
> Thanks for looking!
>
> Michael N6MST (formerly KJ6DRG)
>
>
>

17835. SODA POP - Calibration BFO Adjustment not doing anything

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-29 00:35:35 UTC
From: John Sutter
Topic: 17835 Message: 17835

I'm stuck again.

The new Si5351A chip fixed my oscillator problem.
When I go to adjust the BFO I am seeing no movement on TP2.

I checked point-to-point connectivity of all components last night
and it looks good. I caught my son's soldering errors earlier, just
one cold solder joint and two he forgot to solder altogether, not bad
though for his first surface mount project.

I captured a few waveforms at strategic locations and put them up at:
http://www.sutters.com/AmateurRadio/SODA_POP/Debug/

I'm guessing that some signal from clock 0 is supposed to make it through
the crystal filter, but I'm not seeing anything make it past Q13.

- John
W1JDS

17836. Post delay?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-29 01:42:06 UTC
From: mst72481@...
Topic: 17836 Message: 17836

Is there a delay on posts? My posts seem to take a long time to show up. Sometimes they don't show up at all. Is there a mod that approves posts or is this an open forum?

17837. Re: FS: LNR MTR3

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-28 23:25:27 UTC
From: mst72481@...
Topic: 17833 Message: 17837

Hi Sean, I'm flexible on payment if your friend wants the radio. PayPal, money order, check all good by me.

How shall we proceed?

Thanks and 73,
Michael N6MST

17838. SODA POP resistance measurement

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-30 22:04:03 UTC
From: Randy Moore
Topic: 17838 Message: 17838

I'm STILL chasing low receive output on my SP. My current suspicion is that something is amiss with the AGC. SO I'm poking around and discover that measuring across R19 gives me about 100K and not 1Meg (the resistor is correctly labeled 105). Could be the rest of the circuit is causing this, but could someone with a working SP measure across R19 (just above Q11) and check me on this? I could remove R19 and measure it, but I'd rather not.

Also, with power applied I get 4.5 vdc at the junction between R19 and R22. With no antenna connected.

Tnx es 73,
Randy, KS4L

17839. Re: Sodapop Kit.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-04-30 15:21:23 UTC
From: Rick M0LEP
Topic: 17829 Message: 17839

On Thu 27 Apr Mike G0BPU wrote:
> Thanks for the info Colin, with luck they will arrive soon.

Hopefully...

I've heard of stuff sent to "UK" ending up in Ukraine, and a friend who lives in New Zealand was surprised to get a customs clearence request from Kazakhstan, until he noticed the sender had put "KZ" instead of "NZ" on the address label. I wonder what weirdness resulted in our kits heading to New South Wales...

--
73, Rick, M0LEP

17840. Re: [AT_Sprint] SODA POP resistance measurement

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-01 00:56:20 UTC
From: David Giddy
Topic: 17838 Message: 17840

Randy,

I've just completed my build and am having the same issue as you - very low receive sensitivity. I measure the Minimum Discernable Signal (MDS) to be approx -86dBm (equivalent to S7). I've traced a signal through the circuit and there's nothing jumping out as a major problem, so I'm wondering if one of the capacitors along the receive chain has a wrong value as I didn't measure each capacitor value as I completed the build.

It would be really helpful if someone with a unit with good sensitivity was able to make some measurements of signal levels through the receive chain and post them to help isolate where the problem may be. I'd suggest feeding a known strong signal (e.g S9+20 - 500 uV) into the antenna and then perhaps post scope images at key points along the receive chain.

I too was wondering about the AGC, so I removed Q12 and it made no difference, so I don't think that's the problem. The 4.5Vdc at R19 and R22 junction is correct as that's set by those two resistors as a voltage divider to keep Q11 biased off with no/low signal.

73

David
VK3IL

On Mon, May 1, 2017 at 8:04 AM, Randy Moore wrmoore47@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> I'm STILL chasing low receive output on my SP. My current suspicion is
> that something is amiss with the AGC. SO I'm poking around and discover
> that measuring across R19 gives me about 100K and not 1Meg (the resistor is
> correctly labeled 105). Could be the rest of the circuit is causing this,
> but could someone with a working SP measure across R19 (just above Q11) and
> check me on this? I could remove R19 and measure it, but I'd rather not.
>
> Also, with power applied I get 4.5 vdc at the junction between R19 and
> R22. With no antenna connected.
>
> Tnx es 73,
> Randy, KS4L
>
>
>

--

73

David
VK3IL

17841. Re: Re: [AT_Sprint] SODA POP resistance measurement

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-01 02:38:53 UTC
From: Randy Moore
Topic: 17838 Message: 17841

David, please keep me informed of your progress! I'd love to get my SP working correctly!!

73,
Randy, KS4L

------ Original Message ------
From: "David Giddy david@... [AT_Sprint]"
<AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: 4/30/2017 7:56:20 PM
Subject: Re: [AT_Sprint] SODA POP resistance measurement

>
>
>Randy,
>
>I've just completed my build and am having the same issue as you - very
>low receive sensitivity. I measure the Minimum Discernable Signal (MDS)
>to be approx -86dBm (equivalent to S7). I've traced a signal through
>the circuit and there's nothing jumping out as a major problem, so I'm
>wondering if one of the capacitors along the receive chain has a wrong
>value as I didn't measure each capacitor value as I completed the
>build.
>
>It would be really helpful if someone with a unit with good sensitivity
>was able to make some measurements of signal levels through the receive
>chain and post them to help isolate where the problem may be. I'd
>suggest feeding a known strong signal (e.g S9+20 - 500 uV) into the
>antenna and then perhaps post scope images at key points along the
>receive chain.
>
>I too was wondering about the AGC, so I removed Q12 and it made no
>difference, so I don't think that's the problem. The 4.5Vdc at R19 and
>R22 junction is correct as that's set by those two resistors as a
>voltage divider to keep Q11 biased off with no/low signal.
>
>73
>
>David
>VK3IL
>
>On Mon, May 1, 2017 at 8:04 AM, Randy Moore wrmoore47@...
>[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>>
>>

>>I'm STILL chasing low receive output on my SP. My current suspicion is
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>>circuit is causing this, but could someone with a working SP measure
>>across R19 (just above Q11) and check me on this? I could remove R19
>>and measure it, but I'd rather not.
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>>Also, with power applied I get 4.5 vdc at the junction between R19 and
>>R22. With no antenna connected.
>>
>>Tnx es 73,
>>Randy, KS4L
>>
>
>
>
>--
>
>73
>
>David
>VK3IL
>

17842. Re: Sodapop Kit.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-01 13:19:12 UTC
From: dl2arl@...
Topic: 17829 Message: 17842

"...I wonder what weirdness resulted in our kits
heading to New South Wales..."

...well: this must be the magic of long path propagation...

(I could not resist that one ;-)

Have fun (I think that anticipated pleasure is the highest degree of delight at all)!
Yours friendly es 73, Razvan DL2ARL

17843. Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-02 02:33:54 UTC
From: Shirley Márquez Dúlcey
Topic: 17843 Message: 17843

I built my Soda Pop today. I chose to built it for the 20 meter band. Did it all with solder paste.

Everything went fine up to the calibration. I don't currently have a dedicated frequency counter handy, but I do have a Rigol scope on my bench that has a frequency counter mode - in addition to the normal information readout it has a six digit hardware counter that can be assigned to one input. That's only 100 Hz resolution, but by aiming right for the point where the readout flips from 9.9999 to 10.0000 I figured I could get within a Hertz or two. (It's supposedly only accurate to 1-2 ppm anyway, so that's a potential error of 10-20 Hz. I could hear the calibration signal to peak the receive filter trimmers.

But alas, when I hook it up to my AlexLoop it hears absolutely nothing. Not even band noise. (Yes, I tuned the antenna.) I checked the low pass filter toroids in case I had a bad solder joint there (sometimes a problem when you're using enameled wire) but I have continuity across the inductors.

So, it's troubleshooting time. But that's a project for another day; my brain is fried for now. I don't have a standalone signal generator, but I have various things that can be pressed into duty.

Meanwhile, I will say that the build instructions mostly worked very well. About the only thing I might add is to suggest that the surface mount components that are band dependent should be placed just after the other components on that side (which is what I did), especially if you're using solder paste so you can solder them at the same time, rather than waiting to reach the page of the instructions where they are listed. I wound and soldered the toroids after placing the other parts on that side, which went well enough, though doing them before some of the taller parts had been placed might have been better. The colored stripes on the tapes made it easy to identify the capacitors and inductors; resistors, as usual, called for the magnifier.

17844. Re: [AT_Sprint] SODA POP - Calibration BFO Adjustment not doing anything

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-02 07:23:53 UTC
From: John Sutter
Topic: 17835 Message: 17844

It looks like my problem was that I needed to adjust the BFO frequency
to setting 913.8
as opposed to 914.8. At 914.8 there is only DC on TP2.

It also looks like IF information is lost each time the calibration
procedure is run.

For the BFO Adjust step, my peak at TP2 seems to be about 515 Hz at 7.6V
p-p.

I guess it's time to solder in R29 and see what we have.

- John

17845. Re: Sodapop Kit.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-02 09:09:05 UTC
From: ghwalke@...
Topic: 17829 Message: 17845

Good Day
Received an email this morning from USPS explaining my small package has arrived at the UK and is currently being processed through the system.
This was after Australia Post telling me it was sent back to the sender due to an incorrect address.
Hope the remainder of the Soda Pop packages turn up.

73 Graeme
M0OAT

17846. RE: [AT_Sprint] Re: Sodapop Kit.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-02 15:57:01 UTC
From: <steve.kd1jv@...>
Topic: 17829 Message: 17846

That’s good to hear. It took them long enough to figure this out. Hopefully the rest of the wayward kits will arrive at their proper destinations soon.

73, Steve

Good Day
Received an email this morning from USPS explaining my small package has arrived at the UK and is currently being processed through the system.
This was after Australia Post telling me it was sent back to the sender due to an incorrect address.
Hope the remainder of the Soda Pop packages turn up.

73 Graeme
M0OAT

17847. Re: [AT_Sprint] Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-02 17:30:40 UTC
From: Steve Saslow
Topic: 17843 Message: 17847

Congratulations on your progress, Shirley! Truly, you have come so far! I have completed my sn 063, and it's a 40m unit...I was fortunate to have it running per instructions from the git-go, and been checking into our local regional noontime SSB net (small mod' to make IF wideband enough). I did soldering iron...

I'm hoping that some in the SP gang will consider and enjoy tackling/creating a troubleshooting suggested "tree" or procedure! For example, it might have certain entry places, such as yours: "no RX at all". Then it might suggest, as in some earlier posts here: test for AF output by touching pin 2 and (separately) pin 3 of U2 the LM386 AF amplifier, and listening for loud humming and even broadcast signals...then work your way back along the RX path... That's a classic procedure: dc power in the right places (and amounts), then audio output/working one's way back from there...Tektronix, as a really good other example, had info about the voltages to expect at various places, right on the schematic, and accurately graphed waveform illustrations, too!

Another approach often began with checking every oscillator almost first-thing: frequency, waveform and amplitude. Next: the basic voltages and resistances at each device (as it used to be with vacuum tubes/valves)...

Quite recently, Don Koehler KL7KN did a comprehensive and imho excellent job on the MFJ-9200 series transceivers, "a Guide to Operating, Troubleshooting and Repair..." ; and no small thing: Steve Weber contributed a very clear schematic of that rig.

Best wishes! -Steve k7ew

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Shirley Márquez Dúlcey mark@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Monday, May 1, 2017 7:33 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Soda Pop hears nothing :(

I built my Soda Pop today. I chose to built it for the 20 meter band.
Did it all with solder paste.

Everything went fine up to the calibration. I don't currently have a
dedicated frequency counter handy, but I do have a Rigol scope on my
bench that has a frequency counter mode - in addition to the normal
information readout it has a six digit hardware counter that can be
assigned to one input. That's only 100 Hz resolution, but by aiming
right for the point where the readout flips from 9.9999 to 10.0000 I
figured I could get within a Hertz or two. (It's supposedly only
accurate to 1-2 ppm anyway, so that's a potential error of 10-20 Hz. I
could hear the calibration signal to peak the receive filter trimmers.

But alas, when I hook it up to my AlexLoop it hears absolutely
nothing. Not even band noise. (Yes, I tuned the antenna.) I checked

the low pass filter toroids in case I had a bad solder joint there (sometimes a problem when you're using enameled wire) but I have continuity across the inductors.

So, it's troubleshooting time. But that's a project for another day; my brain is fried for now. I don't have a standalone signal generator, but I have various things that can be pressed into duty.

Meanwhile, I will say that the build instructions mostly worked very well. About the only thing I might add is to suggest that the surface mount components that are band dependent should be placed just after the other components on that side (which is what I did), especially if you're using solder paste so you can solder them at the same time, rather than waiting to reach the page of the instructions where they are listed. I wound and soldered the toroids after placing the other parts on that side, which went well enough, though doing them before some of the taller parts had been placed might have been better. The colored stripes on the tapes made it easy to identify the capacitors and inductors; resistors, as usual, called for the magnifier.

17848. RE: [AT_Sprint] Re: Sodapop Kit.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-02 22:21:39 UTC
From: Graham Smith
Topic: 17829 Message: 17848

Yea! Mine arrived safely today, thank you, after going via the “long path” pausing for refreshments in Dubai and Australia. That’s one sturdy little box it came in.

73 de Graham G3ZOD

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: 02 May 2017 16:57
To: ghwalke@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Subject: RE: [AT_Sprint] Re: Sodapop Kit.

That’s good to hear. It took them long enough to figure this out. Hopefully the rest of the wayward kits will arrive at their proper destinations soon.

73, Steve

17849. It's Alive

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-03 00:00:48 UTC
From: John Sutter
Topic: 5783 Message: 17849

The transmitter was warming up my dummy load last night and showing up well on my
RS-HFIQ I built earlier in the year, but there wasn't much to pick up last night.

This afternoon I heard some JT65 and am now listening to some CW that is way too
fast for me at this point.

Now I need to learn to copy CW better/faster.

I'm running Camil's FW.

I'll check it out with my company's spectrum analyzer and signal generator Thursday
night. I think I need to recalibrate the 10MHz. I seem to be about 2MHz off somehow.

I'll probably put a parts order together and build up the second PCB this summer.

- John

17850. MTR3B power output regulation

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-03 00:36:01 UTC
From: ut0um@...
Topic: 17850 Message: 17850

Hello,

now I finish programming my Arduino based MTR3B and have one question

I read at the manual following:
NOTE: If the supply voltage exceeds 10.0 volts, the power output is automatically reduced.

How it is programmed?

I can keying by 24 pin of MSP, but pin 24 is digital I/O

To reduce the power, I must supply not full voltage to the transistors BS170

How I can do it?

Thanks!

73! Alexey UT0UM

17851. Re: MTR3B power output regulation

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-03 02:35:36 UTC
From: jgaffke@...
Topic: 17850 Message: 17851

When in TUNE mode, Steve checks the supply voltage and if it's over 10 volts then instead of leaving the transmitter keyed on, he turns it on and off very rapidly, faster than the rise and fall times of the keying envelope. No a perfect solution since the trapezoidal key shaping is performed by an integrator and so the power will slowly creep up to some less-than-maximum level, but it works well enough and costs no additional hardware. Here's the post where this is described when it was first unveiled for the MTR rigs, I assume the Soda-Pop is the same.:

https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/messages/13876
https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/messages/13876

Jerry, KE7ER

---In AT_Sprint@yahoogroups.com, <ut0um@...> wrote :

Hello,

now I finish programming my Arduino based MTR3B and have one question

I read at the manual following:
NOTE: If the supply voltage exceeds 10.0 volts, the power output is automatically reduced.

How it is programmed?

I can keying by 24 pin of MSP, but pin 24 is digital I/O

To reduce the power, I must supply not full voltage to the transistors BS170

How I can do it?

Thanks!

73! Alexey UT0UM

17852. Re: [AT_Sprint] MTR3B power output regulation

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-03 11:46:48 UTC
From: Dale Putnam
Topic: 17850 Message: 17852

Hi Alexey,

Is that reference to the "tune" with more than 10v as a supply?

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of ut0um@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Tuesday, May 2, 2017 6:36 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] MTR3B power output regulation

Hello,

now I finish programming my Arduino based MTR3B and have one question

I read at the manual following:

NOTE: If the supply voltage exceeds 10.0 volts, the power output is automatically reduced.

How it is programmed?

I can keying by 24 pin of MSP, but pin 24 is digital I/O

To reduce the power, I must supply not full voltage to the transistors BS170

How I can do it?

Thanks!

73! Alexey UT0UM

17853. Re: [AT_Sprint] Re: MTR3B power output regulation

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-03 10:06:49 UTC
From: Alexey Yermolayev
Topic: 17850 Message: 17853

Hello Jerry!
Many thanks for answer!
I thought so, its called PWM

73! Alexey UT0UM

On Wednesday, May 3, 2017 5:35 AM, "jgaffke@... [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:

When in TUNE mode, Steve checks the supply voltage and if it's over 10 volts then instead of leaving the transmitter keyed on, he turns it on and off very rapidly, faster than the rise and fall times of the keying envelope. No a perfect solution since the trapezoidal key shaping is performed by an integrator and so the power will slowly creep up to some less-than-maximum level, but it works well enough and costs no additional hardware. Here's the post where this is described when it was first unveiled for the MTR rigs, I assume the Soda-Pop is the same.:
https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/messages/13876
Jerry, KE7ER

---In AT_Sprint@...m, <ut0um@...> wrote :

Hello,
now I finish programming my Arduino based MTR3B and have one question
I read at the manual following:NOTE: If the supply voltage exceeds 10.0 volts, the power output is automatically reduced.
How it is programmed?
I can keying by 24 pin of MSP, but pin 24 is digital I/O
To reduce the power, I must supply not full voltage to the transistors BS170
How I can do it?
Thanks!
73! Alexey UT0UM

17854. Re: [AT_Sprint] MTR3B power output regulation

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-03 13:00:32 UTC
From: Alexey Yermolayev
Topic: 17850 Message: 17854

Hi Dale
yes
I finishing programming my Arduino based MTR3B and want to do all features of original MTR3B
73! Alexey UT0UM

On Wednesday, May 3, 2017 3:02 PM, "Dale Putnam daleputnam@... [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:

  Hi Alexey, Is that reference to the "tune" with more than 10v as a supply?

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of ut0um@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Tuesday, May 2, 2017 6:36 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] MTR3B power output regulation Hello,
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I read at the manual following:NOTE: If the supply voltage exceeds 10.0 volts, the power output is automatically reduced.
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I can keying by 24 pin of MSP, but pin 24 is digital I/O
To reduce the power, I must supply not full voltage to the transistors BS170
How I can do it?
Thanks!
73! Alexey UT0UM

17855. Re: [AT_Sprint] MTR3B power output regulation

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-03 13:13:35 UTC
From: Dale Putnam
Topic: 17850 Message: 17855

ok.. cool.

the ats3b senses the supply voltage when "tune" is selected, if it is above 10v, the keying is not allowed to go solid key down, rather it is

a fast "dit".. that keeps the power out lower, by not being keyed on solid.

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Alexey Yermolayev ut0um@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Wednesday, May 3, 2017 7:00 AM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] MTR3B power output regulation

Hi Dale

yes

I finishing programming my Arduino based MTR3B and want to do all features of original MTR3B

73! Alexey UT0UM

On Wednesday, May 3, 2017 3:02 PM, "Dale Putnam daleputnam@... [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:

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"Actions speak louder than words"
1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of ut0um@yahoo.com [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Tuesday, May 2, 2017 6:36 PM
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Subject: [AT_Sprint] MTR3B power output regulation

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To reduce the power, I must supply not full voltage to the transistors BS170

How I can do it?

Thanks!

73! Alexey UT0UM

17856. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-04 12:23:55 UTC
From: Camil Staps
Topic: 17715 Message: 17856

To celebrate the one-month anniversary of your email, beacon mode has
been implemented!

Press the keyer switch during transmission of any message to
enable/disable beacon mode. The display will read `bcn` instead of `Snd`.

It is now also possible to prematurely end an active transmission, by
pressing the RIT switch.

Related to this: I have also implemented an option to allow for up to 10
message memories. They can then be selected using the rotary encoder
rather than the paddle. A digit on the display identifies the selected
memory.
There have been some other changes and new features as well, but I won't
list every change here. They are well documented in the readme on the
URL below, but if anything is unclear, don't hesitate to ask of course.

For reference, here is the link to my firmware:
https://github.com/camilstaps/SODA-POP-source

73,
Camil, PD7LOL
On 2017-04-04 09:14 PM, dl2arl@... [AT_Sprint]
<AT_Sprint@yahoogroups.com> wrote:
> "With the Arduino source code it is very easy to make changes, so that was also a very
nice decision. Nice work, Steve!"
>
> ... a nice feature to resuscitate would be the beacon loop mode... I miss this option
with both the MTR2bander and will miss it with the soda pop too.
>
> 73, Razvan DL2ARL
>

17857. Re: [AT_Sprint] MTR3B power output regulation

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-04 16:06:11 UTC
From: jgaffke@...
Topic: 17850 Message: 17857

Dale, you're showing your age. You likely meant the MTR3b, not the ATS3b.

---In AT_Sprint@yahoogroups.com, <daleputnam@...> wrote :
ok.. cool. the ats3b senses the supply voltage when "tune" is selected, if it is above 10v, the keying is not allowed to go solid key down, rather it is a fast "dit".. that keeps the power out lower, by not being keyed on solid.

17858. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-04 16:51:42 UTC
From: Jonathan
Topic: 17715 Message: 17858

Camil, That diagram of the menus is stunning! I'm imagining that inside the cover of my SodaPop rig now. Thanks for the work you've done on the firmware.Jonathan W0XO

Sent: Thursday, May 4, 2017 7:27 AM
Subject: Re: [AT_Sprint] Re: SODA POP source code

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There have been some other changes and new features as well, but I won't list every change here. They are well documented in the readme on the URL below, but if anything is unclear, don't hesitate to ask of course.

For reference, here is the link to my firmware:
https://github.com/camilstaps/SODA-POP-source

73,
Camil, PD7LOL

17859. Re: Sodapop Kit.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-04 16:51:34 UTC
From: Rick M0LEP
Topic: 17829 Message: 17859

....and #009 arrived here today. No evidence on the package to indicate why it took so long or where it has been, though. Still and all, here now. Next, figure out the building...

On Tue 02 May Graham G3ZOD wrote:
> Yea! Mine arrived safely today, thank you,

--
73, Rick, M0LEP

17860. Case for the Soda Pop transceiver

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-04 19:17:44 UTC
From: Joe W2KJ
Topic: 17860 Message: 17860

Howdy Gang:

Has anyone found a nice metal case for the Soda Pop rig yet?

Any info appreciated.

73, Joe W2KJ
I QRP, therefore I am

17861. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-04 19:23:03 UTC
From: Steve Saslow
Topic: 17715 Message: 17861

Wow! This beacon addition looks like it will be very helpful, Camil!

But it does look like, at least for me, I shall need/try to make a fresh or updated set of Operating Instructions...shall probably have to write out step-by-step, what to do and what I should hear/see displayed,how to exit...for all the things the newly created ATMEGA can do! I would place this along with the original page 11 (that is, the "SODA POP_final.pdf" dated March 14, 2017). I apologize: I must be relying a large amount on written instructions, at this point, at this early stage of using the SP, and knowing so little about the programming processes and skills...

Quite late, two evenings ago, Camil, I tried to locate and write down where the birdies and "switch clicks" are, on my (40m) SP. I found some new things!

There are loud birdies, medium-loud birdies, and low-volume birdies!

Same for the "switch clicks". (The loud birdies = 4 in number. There are roughly several dozen birdies and switch-clicks.)

Some of these artifacts appear considerably stronger on one sideband than the other...and vice-versa! Most of them appear as even-strength DSB signals: the original narrow IF bandwidth probably reduces this situation considerably/when I get the switch-selecting part added, and have the new advantage of the smaller/20 Hz tuning steps, I'll be able to check this and report on it more thoroughly.

All for now, Camil! 73, Steve K7EW

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Camil Staps pd7lol@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Thursday, May 4, 2017 5:23 AM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: SODA POP source code

To celebrate the one-month anniversary of your email, beacon mode has
been implemented!

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It is now also possible to prematurely end an active transmission, by
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Related to this: I have also implemented an option to allow for up to 10
message memories. They can then be selected using the rotary encoder
rather than the paddle. A digit on the display identifies the selected
memory.
There have been some other changes and new features as well, but I won't
list every change here. They are well documented in the readme on the

URL below, but if anything is unclear, don't hesitate to ask of course.

For reference, here is the link to my firmware:
https://github.com/camilstaps/SODA-POP-source

73,
Camil, PD7LOL
On 2017-04-04 09:14 PM, dl2arl@... [AT_Sprint]
<AT_Sprint@yahoogroups.com> wrote:
> "With the Arduino source code it is very easy to make changes, so that was also a very nice decision. Nice work, Steve!"
>
> ... a nice feature to resuscitate would be the beacon loop mode... I miss this option with both the MTR2bander and will miss it with the soda pop too.
>
> 73, Razvan DL2ARL
>

17862. Re: Sodapop Kit.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-06 11:13:54 UTC
From: m.r.johnson4715@...
Topic: 17829 Message: 17862

SP Kit arrived at last after its world tour, but did call for a trip to the local sorting office. Now to see if it will fit the planed enclosure.
73, Mike G0BPU

17863. Re: Sodapop Kit.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-06 15:34:17 UTC
From: Colin Weaving
Topic: 17829 Message: 17863

Mine too. Soda Pop picked up from Post Office this morning.

For the first time, I was not not unhappy to pay the VAT and Clearance charges. Just relieved that it finally made it to the UK.

Colin M3WCK

Sent from my iPad

17864. Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-07 03:04:17 UTC
From: simon.jack68@...
Topic: 17864 Message: 17864

Hi,

What size are the resistors and caps for ordering to build the other board and for replacing lost parts for the good board?

Regards

Simon VK3ELH

17865. Re: [AT_Sprint] Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-07 11:41:00 UTC
From: John Sutter
Topic: 17864 Message: 17865

The resistors are 0805s from my measurements.
Most of the caps are 0805s as well, though a few are 1208s

I've been working on a BOM, but it is not complete.
http://www.sutters.com/AmateurRadio/SODA_POP/SODA_POP_BOM.csv

I don't have a part number for the display, but I think it's a Tayda part.
I'll update the BOM as I get time. I went for C0G caps when possible.

17866. Re: [AT_Sprint] Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-07 17:14:52 UTC
From: Shirley Márquez Dúlcey
Topic: 17864 Message: 17866

John Sutter's BOM spreadsheet substantially overstates the total cost of some of the resistors. The thing is that it costs 10 cents to buy one resistor, mostly to compensate the cost of having somebody pull out a tape and cut off one resistor. But ten resistors of the same value are 21 cents, so if you need more than one of a value you might as well buy ten.

The capacitors are overspecified. Steve surely used the less costly 50V parts, not 100V parts. The more detailed part list for the MTR-5B lists the voltage ratings and all the caps in that radio are 50V. I believe the BOM also specifies the .001uF and .01uF caps incorrectly. They are probably X7R dielectric, not 1206 C0G (aka NP0), and the .01uF caps are 0805 size rather than 1206. They are used for bypassing so the more costly C0G parts are not needed. (But avoid the even cheaper Y5V parts; there are some serious gotchas with those.)

The same buying logic applies to the capacitors. For example, if you buy the correct sort of .01uF capacitor (like this one: 478-5780-1-ND) they cost 10 cents for one or 34 cents for ten. If you plan to do other SMD building you should consider buying at least 100 of the three most common bypass values (.001uF, .01uF, and .1uF); you will use them up quickly and the price drops even more; 100 of those .01uF caps cost $1.52.

Resistors, NP0 capacitors, and ceramic bypass capacitors from different manufacturers are freely interchangeable in nearly all cases. If you have an assortment pack of SMD parts as some of us do, or tapes of SMD parts that you picked up at a hamfest, you can use those.

The parts where we really need the specs of the originals are the SMD inductors, especially the ones used in the bandpass filters. Substituting other parts is likely to change the performance of the circuit. An official BOM from Steve for those parts would be ideal, but I don't know if he plans to release one.

On Sun, May 7, 2017 at 7:41 AM, John Sutter jds@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> The resistors are 0805s from my measurements.
> Most of the caps are 0805s as well, though a few are 1208s
>
> I've been working on a BOM, but it is not complete.
> http://www.sutters.com/AmateurRadio/SODA_POP/SODA_POP_BOM.csv
>
> I don't have a part number for the display, but I think it's a Tayda part.
> I'll update the BOM as I get time. I went for C0G caps when possible.

>
>
>

17867. Death of SODA POP exaggerated

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-07 17:23:14 UTC
From: Shirley Márquez Dúlcey
Topic: 17867 Message: 17867

A few days ago I reported that my SODA POP didn't seem to be able to receive anything. It couldn't, but it's because there was nothing to hear on 20 meters at the time. A couple of days later I repeated the test, but then followed it up by connecting my K2 to the same antenna; it couldn't hear anything either!

I had the SODA POP with me at NEAR-FEST this weekend. I did hear some signals including a DL4, and that was with an Alex-Loop; I'm sure I would have heard more with a more substantial antenna. I think there may still be a sensitivity issue (signal levels were higher on the K2) but at least it's not completely non-functional.

Next step: hook up a signal generator and a step attenuator, and see how the signal level survives the various stages of the receiver. First check at the input, then after the low pass filter, then after the band pass filter, and see whether the signal losses are appropriate or excessive. If all of those look good then look at the mixer output, the output of the crystal filter, and so on. I'll get this sorted out... and then on to transmitting! (Don't want to try that until I'm sure the low pass filter isn't a problem.)

17868. Re: [AT_Sprint] Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-07 18:19:02 UTC
From: John Sutter
Topic: 17864 Message: 17868

I did ask Steve if he had a BOM he could share, but he didn't so I decided to work on my own. Any group help would be appreciated.

I definitely went with parts better than probably necessary, but I did the BOM for a project
I was going to build one of. Though like you said, when I order an SMD part I usually round up at least 10 because I know I'll need one again and kick myself if I didn't order spares. As it was my son learned a lot about the flight and camouflage characteristics of SMD parts.
He was working at an engineering rework station, so when he scraped the bench he would find 10 or 20 parts which presented more learning opportunities for him :-)

I also didn't know the requirements of the design. I am comfortable in the digital world where
we use those bypass caps quite a bit, but I saw them used in analog sections so I went with the
cheapest of the best parts.

Seeing the 51V zener in the front end made me want to go with 100V parts.

I think the only 1206 caps are in the bandpass filter which are all in the 100s of pF range. I was putting this together around 3AM one night, so there could be mistakes :-)

Building and costing a production BOM would be a different exercise.

Thanks for the feedback,

- John

On 5/7/2017 10:14 AM, Shirley Márquez Dúlcey mark@... [AT_Sprint] wrote:

John Sutter's BOM spreadsheet substantially overstates the total cost of some of the resistors. The thing is that it costs 10 cents to buy one resistor, mostly to compensate the cost of having somebody pull out a tape and cut off one resistor. But ten resistors of the same value are 21 cents, so if you need more than one of a value you might as well buy ten.

The capacitors are overspecified. Steve surely used the less costly 50V parts, not 100V parts. The more detailed part list for the MTR-5B lists the voltage ratings and all the caps in that radio are 50V. I believe the BOM also specifies the .001uF and .01uF caps incorrectly. They are probably X7R dielectric, not 1206 C0G (aka NP0), and the .01uF caps are 0805 size rather than 1206. They are used for bypassing so the more costly C0G parts are not needed. (But avoid the even cheaper Y5V parts; there are some serious gotchas with those.)

The same buying logic applies to the capacitors. For example, if you buy the correct sort of .01uF capacitor (like this one: 478-5780-1-ND) they cost 10 cents for one or 34 cents for ten. If you plan to do other SMD building you should consider buying at least 100 of

the three most common bypass values (.001uF, .01uF, and .1uF); you will use them up quickly and the price drops even more; 100 of those .01uF caps cost $1.52.

Resistors, NP0 capacitors, and ceramic bypass capacitors from different manufacturers are freely interchangeable in nearly all cases. If you have an assortment pack of SMD parts as some of us do, or tapes of SMD parts that you picked up at a hamfest, you can use those.

The parts where we really need the specs of the originals are the SMD inductors, especially the ones used in the bandpass filters. Substituting other parts is likely to change the performance of the circuit. An official BOM from Steve for those parts would be ideal, but I don't know if he plans to release one.

On Sun, May 7, 2017 at 7:41 AM, John Sutter jds@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

The resistors are 0805s from my measurements.
Most of the caps are 0805s as well, though a few are 1208s

I've been working on a BOM, but it is not complete.
http://www.sutters.com/AmateurRadio/SODA_POP/SODA_POP_BOM.csv

I don't have a part number for the display, but I think it's a Tayda part.
I'll update the BOM as I get time. I went for C0G caps when possible.

17869. Soda Pop TX spectrum plot

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-08 09:47:10 UTC
From: Camil Staps
Topic: 17869 Message: 17869

Hello all,

Together with David VK3IL and Warren VK3BYD I'm trying to get band modules working. We seem to have a problem with the harmonics. Especially the 3rd and 5th are way too high.

It would help us if we had a spectrum plot of someone who built the Soda Pop already, to know what we should be aiming for. So, if somebody with a spectrum analyser has finished their built, plots would be very much appreciated! Thanks in advance.

73,
Camil, PD7LOL

17870. Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-08 14:14:15 UTC
From: simon.jack68@...
Topic: 17843 Message: 17870

My soda pop hears nothing also. No band noise or lift in noise when the antenna is connected.

Here are the things that I've checked.

Transmitter working. Good output measured on my power meter so safe to conclude that si5351 is working. Sidetone clear and good volume. Not too loud.

Frequency measured at the output of the Clock 0 / pin 10 of the si5351 is 2.something Mhz is this right? I didn't write down the exact frequency but when added to the BFO frequency it matched the frequency on the display. Is this right?

Output at the C36 end of the BFO crystal did not show on my scope. But it did at the CT3 end of the crystal. Seems weird to me. Same frequency where Q6 and Q8 meet.

Tested the audio chain back to the junction of R18 and C27. Small input signal passes through to the audio out.

Calibration performed. When peaking the signals, there were other signals present that did not move when making adjustments. There were audio signals at (roughly) 220Hz, 430Hz and 630Hz. The peaking signal was around 540Hz. When in normal listening mode, these same signals were present. The extraneous signals were at all at similar levels.

I was missing the C5 5pf cap so put in a 5.6pf ceramic until a replacement arrives.

Display works fine.

Rotary encoder is unreliable on the 50Hz setting. Sometimes moving up when it should move down and vice versa, particularly turning moving quickly. Works much better on the 200Hz setting. Understand this might be fixed in coding.

Looking to fix the receive. Any help appreciated.

Measured all caps as being assembled. Inductors not measured, relied on colour coding.

Regards

Simon VK3ELH

17871. Re: [AT_Sprint] Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-08 15:43:46 UTC
From: Shirley Márquez Dúlcey
Topic: 17843 Message: 17871

In a later update I discovered that I'm actually receiving something after all - there just wasn't anything to hear on 20 meters the first couple of times I tested it, which is the band I built the rig for. (I haven't yet decided whether I'll build the coaster for 40 or try to do the plug in thing.) But I think the sensitivity is still lacking, so I'm planning to see how the signal progresses through the filters.

If your LO is 2. something MHz on receive you presumably built yours for 40 meters. The IF is at 4.9 MHz; 4.9 + 2.1 = 7. The manual doesn't document whether the rig uses low or high side injection and I haven't yet read the code to see which it does, but I guess we know now!

I have a similar problem with the rotary encoder. Tuning down mostly works but tuning up is unreliable, and it loses counts if I try to tune quickly. I thought I might have had a hardware issue near the decoder that I'd track down later, but if it's a software issue it should be fixed by reprogramming the ATMega328. There is already alternative firmware for the SODA POP so perhaps it's fixed there.

On Mon, May 8, 2017 at 10:14 AM, simon.jack68@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> My soda pop hears nothing also. No band noise or lift in noise when the
> antenna is connected.
>
> Here are the things that I've checked.
>
> Transmitter working. Good output measured on my power meter so safe to
> conclude that si5351 is working. Sidetone clear and good volume. Not too
> loud.
>
> Frequency measured at the output of the Clock 0 / pin 10 of the si5351 is
> 2.something Mhz is this right? I didn't write down the exact frequency but
> when added to the BFO frequency it matched the frequency on the display.
> Is this right?
>
> Output at the C36 end of the BFO crystal did not show on my scope. But it
> did at the CT3 end of the crystal. Seems weird to me. Same frequency
> where Q6 and Q8 meet.
>
> Tested the audio chain back to the junction of R18 and C27. Small input
> signal passes through to the audio out.
>
> Calibration performed. When peaking the signals, there were other signals

> present that did not move when making adjustments. There were audio signals
> at (roughly) 220Hz, 430Hz and 630Hz. The peaking signal was around 540Hz.
> When in normal listening mode, these same signals were present. The
> extraneous signals were at all at similar levels.
>
> I was missing the C5 5pf cap so put in a 5.6pf ceramic until a replacement
> arrives.
>
> Display works fine.
>
> Rotary encoder is unreliable on the 50Hz setting. Sometimes moving up
> when it should move down and vice versa, particularly turning moving
> quickly. Works much better on the 200Hz setting. Understand this might be
> fixed in coding.
>
> Looking to fix the receive. Any help appreciated.
>
> Measured all caps as being assembled. Inductors not measured, relied on
> colour coding.
>
> Regards
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>
> Simon VK3ELH
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17872. Soda Pop rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-08 16:13:27 UTC
From: Joe W2KJ
Topic: 17872 Message: 17872

Jut wondering if anyone has successfully completed a Soda Pop rig that is functioning perfectly?

Haven’t started building mine yet….so if there are any showstoppers now is the time to find out.

I plan on using solder paste…my first attempt…just to try the technique out.

Should prove to be an interesting build.

73, Joe W2KJ
I QRP, therefore I am

17873. Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-08 16:10:52 UTC
From: simon.jack68@...
Topic: 17843 Message: 17873

Yes. Built for 40m. Sounds like same encoder problem. Down more teliable than up with 50Hz steps.

Ive tuned around the digital/ jt65 frequecy which always seem to carry some strong signals and still nothing heard.

17874. Re: [AT_Sprint] Soda Pop rig

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-08 18:09:07 UTC
From: John Sutter
Topic: 17872 Message: 17874

Mine seems to be working, though the calibration is off. That is after a calibration cycle the data seems to be lost, but I have verified that the data is stored and read back properly. I need to verify that I am using the correct libraries.

Tuning around I picked up some CW. I picked up the beacon on 14.100 though only the first 2 tones after the call, my other receivers pick up all 4 on the same antenna. I was also able to hear some JT65 around 14.076.

I connected the SODA POP to a good signal generator at work and the SP was apparently able to discern signals down to -120dbM

I put some image of my results on: http://www.sutters.com/AmateurRadio/SODA_POP/RF_0/
Sorry about the bad formatting.

I touched the RF probed to ground to see if any of the birdies showed up. I couldn't correlate
any of them, but it was getting too late.

There is also a snap of the SA when transmitting.

I noticed that behavior was about the same with or without R29 installed, though I haven't gone
back to investigate.

My straight key plugged into the paddle port with a mono-plug results in continuous TX which gave me a very warm dummy load. I need to look into that too.

- John

On 5/8/2017 9:13 AM, Joe W2KJ jotrom@... [AT_Sprint] wrote:

Jut wondering if anyone has successfully completed a Soda Pop rig that is functioning perfectly?

Haven’t started building mine yet….so if there are any showstoppers now is the time to find out.

I plan on using solder paste…my first attempt…just to try the technique out.

Should prove to be an interesting build.

73, Joe W2KJ
I QRP, therefore I am

17875. Re: [AT_Sprint] Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-09 00:58:21 UTC
From: David Giddy
Topic: 17843 Message: 17875

Hi Simon,

If you are getting nothing with strong signals even when tuning around, I'd be checking the signal path from the TX BPF (which is presumably OK if you are transmitting fine), to the RX BPF and first mixer. Best if you can inject a strong signal (S9+) on a known frequency.

The extraneous signals are odd. Do they change in pitch as you tune the radio? If not, they are probably being generated in the audio chain somewhere. If you can use a PC based audio spectrum analyser, you could trace through the audio chain to see where they first appear.

The tuning encoder has a bug in the firmware which leads to erratic behaviour. No doubt Steve will get around to fixing this when he has a chance, but in the meantime, load Camil's new firmware that has this fixed (and adds lots of new features):
https://github.com/camilstaps/SODA-POP-source/tree/master

73

David
VK3IL

On Tue, May 9, 2017 at 2:10 AM, simon.jack68@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> Yes. Built for 40m. Sounds like same encoder problem. Down more teliable
> than up with 50Hz steps.
>
> Ive tuned around the digital/ jt65 frequecy which always seem to carry
> some strong signals and still nothing heard.
>
>

--

73

David
VK3IL

17876. Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-09 13:41:17 UTC
From: simon.jack68@...
Topic: 17843 Message: 17876

Thanks David,

Built a S9 signal generator and traced it to a dodgy solder joint between Q2 and Q4.

Signal is low however. More detective work tomorrow.

Spurious frequencies are still there, they don't move with tuning.

Will do code update next then attack the spurious tones.

Regards

Simon VK3ELH

17877. Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-09 14:31:55 UTC
From: infotechcomms@...
Topic: 17877 Message: 17877

I’m happy to report that my 40m Soda Pop rig is built and working well.

Built using hand soldering over a period of a few days – a total of about 8.5hrs – I was delighted to find it worked first time. Sensitivity seems good and power output is 5.1W with a 12.3 V Li-Ion battery.

I aligned it by ear as I don’t have an oscilloscope and got it close. It was perhaps 20-40Hz off frequency, but a quick tweak in the calibration mode got it pretty much spot on.

The BFO was setup by ear too.

So did the build go without hiccups? Hell no! The following points might be useful to other builders.

1. As always with SMD take great care with the components. Transistor Q14 “pinged” off at one point never to be seen again, or that is what I thought. As luck goes, I found it three days later under a desk lamp - 10 minutes after I had ordered a replacement off Ebay!

2. Follow the instructions religiously and only take out the components one at a time. This saves them getting muddled up as many have no markings.

3. Take extra care with the band-specific components as it is easy to get it wrong. I ended up mistaking some inductors for the capacitors and had to remove them. If in doubt check them with a multimeter to make sure they are inductors and not capacitors. This may be why some people are reporting deaf receivers. The inductors are small, black and more cuboid.

4. When you do the initial alignment and are peaking CT1 and CT2 make sure you have actually turned the volume up. Doh! Even with the volume turned down you will hear a hiss, which you may mistake for band noise. Don’t ask me how I know!

5. Note that not all the component locations are actually used, including C10, C49, C59, C6 (on some bands) and D2.

6. As you identify components bag the spares up in marked bags as you will need some of them when you build the top of the board.

7, When soldering the power socket make sure it is square to the board - mine had twisted slightly and had to be de-soldered and done again.

8. Make sure you have the right number of turns on the two T39 toroids. Putting the wire through the hole counts as one turn.

Anyway, it is early days for the Soda Pop - the 40m band was in lousy condition today and there were only a few signals on, but they seemed about as loud on the Soda Pop as my IC-756 Pro3. I’ll try it again tonight when the band should be better.

A CQ call on 40m resulted in me being heard by DF7GB, DJ2BC, DJ9IE and GW8IZR via the Reverse Beacon Network at up to 20dB SNR at 13:50UTC.

The hardest bit now will be boxing it up - I have a Hammond 1550M Die Cast Box, but that will need some serious metalwork (cutting, drilling and painting) so it will no doubt take longer than the build-up of the board.

I'll put some pix up on my blog at G0KYA.blogspot.co.uk of the board and, ultimately, the finished item.

Steve G0KYA

17878. Re: [AT_Sprint] Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-09 16:33:29 UTC
From: Steve Saslow
Topic: 17877 Message: 17878

Great! Reassuring to find your notes here, Steve! My 40m sn 063 has come out very much the same: hand-soldered/nearly a dozen work sessions and hours (I'm probably slower than many, and was also triple-checking)/very closely studying and following the instructions...and BINGO-first time!

The case I'm making uses copper-clad double-sided 1/32" circuitboard for the sides, and 1/8 and 3/32" (3/32 I found is just a bit lighter than 1/8" but plenty strong in SP dimensions) clear polycarbonate plastic for top and bottom. All original existing corner-mounting holes using 4-40 Allen screws and spacers, above and below the board, providing for complete removal to get at both sides of the board...This has been a little tricky to accomplish, trimming some of the screw and spacer/standoff lengths, and soldering the bottom side's threaded spacers (brass) to the board corners...I also changed the ANT terminal from BNC to screw-mounted RCA phono: imho a more robust mount, plus some space-saving. -When it's completed, I'll try to enclose a photo or 2, to illustrate...

PS I think at least some of the measurements on pg 9 (Packaging) may require double-checking, or I made some measuring mistakes myself: I'm not highly skilled at this, and was glad to have some very small hand-tools to adjust hole placements and sizes!

Thank you, Steve DX to ya'! -Steve K7EW (Portland Oregon)

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of infotechcomms@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Tuesday, May 9, 2017 7:31 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Soda Pop 40m S/N 011 lives!

I’m happy to report that my 40m Soda Pop rig is built and working well.

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So did the build go without hiccups? Hell no! The following points might be useful to other builders.

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3. Take extra care with the band-specific components as it is easy to get it wrong. I ended up mistaking some inductors for the capacitors and had to remove them. If in doubt check them with a multimeter to make sure they are inductors and not capacitors. This may be why some people are reporting deaf receivers. The inductors are small, black and more cuboid.

4. When you do the initial alignment and are peaking CT1 and CT2 make sure you have actually turned the volume up. Doh! Even with the volume turned down you will hear a hiss, which you may mistake for band noise. Don’t ask me how I know!

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I'll put some pix up on my blog at G0KYA.blogspot.co.uk of the board and, ultimately, the finished item.

Steve G0KYA

17879. Re: [AT_Sprint] Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-09 19:45:29 UTC
From: infotechcomms@...
Topic: 17877 Message: 17879

Great stuff - have now worked IQ0RM in Rome and UT5IZ in Ukraine with it and it seems to be holding up OK. Slight hiss in the headphones all the time, even with the volume down - I guess it is the LM386.

But I'm happy and can't wait to get it mounted in a case. Just not looking forward to doing the metalwork!

I was in Portland, Oregon, last September and worked some CW on the USS Blueback W7SUB with Joe KF7UOQ. Small world.

Steve G0KYA

17880. NAQCC May Sprint this Wednesday Evening

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-10 00:42:00 UTC
From: Larry W2LJ
Topic: 17880 Message: 17880

The May NAQCC sprint is this coming Wednesday evening local time (May 10th, EDT - 8:30-10:30PM, CDT - 7:30-9:30PM, MDT - 6:30-8:30PM, PDT - 5:30-7:30PM), which translates as Thursday,May 11th, 0030 to 0230Z in all cases.

For all the "official" information, please go to:

http://naqcc.info/sprint/sprint201705.html

There you will find all the details as to time, frequencies and other important information.

Certificates: SWA (simple wire antennas) certificates by call area, VE and DX for 1st, 2nd and 3rd place finishers (New!). A Certificate for top score in the GAIN antenna category.

Prizes: Too many to list!! - check out the prizes page on our website.

This is a monthly event that caters to the CW veteran, the CW newcomer, straight key and bug fans. All are welcome to participate (this includes QRO); but you must use QRP power levels to compete for awards.

If you've been hesitant to join in our sprints because you hear other sprints running at breakneck speeds, have no fear. Our sprints are geared to the newcomer to CW and/or contesting. Virtually everyone including the many veteran contesters who regularly enter our sprints will slow down to YOUR speed to help you make your contacts.

If you are not already a member of NAQCC... membership is FREE! Now is your chance to join the largest QRP CW Club in the world!! We currently have 7100+ members in: All 50 States - 9 VE Provinces - 100 Countries. Sign up on the NAQCC website today (http://naqcc.info/) and receive a handsome certificate, with your membership number on it, which is good for life.

Come join us and have a real good time!

72/73 de Larry W2LJ
NAQCC #35

for NAQCC
http://naqcc.info/

17881. NAQCC May Sprint this Wednesday Evening

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-10 00:43:10 UTC
From: Larry W2LJ
Topic: 17880 Message: 17881

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Come join us and have a real good time!

72/73 de Larry W2LJ
NAQCC #35

for NAQCC
http://naqcc.info/

17883. Re: [AT_Sprint] Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-10 03:24:11 UTC
From: John Sutter
Topic: 17877 Message: 17883

I've tried a few things to reduce the hiss, but no luck so far.
I tried adding a 47uF tantalum bypass cap across 5V/GND, but it was in the way and made no difference.
I replaced that with a 10uF and 0.1uF cap on top of the LM386.
It also made no difference, but I'm leaving them in for now.
I also added a 10uF bypass cap to pin 7 which also did not get rid of the hiss.

I tried adding some feedback per
https://dmohankumar.wordpress.com/2015/03/15/reducing-hiss-in-lm-386-amplifier-design-note-12/
but it also made no difference.
Just adding the feedback across pins 5 and 8 resulted in a loud whine, but that went away when I added a resistor and cap across pins 1 and 8, but the hiss is still there.

Shorting the inputs to ground also made no difference.

Shorting C1 to ground made everything absolutely quiet ;-)

- John

On 5/9/2017 12:45 PM, infotechcomms@... [AT_Sprint] wrote:

Great stuff - have now worked IQ0RM in Rome and UT5IZ in Ukraine with it and it seems to be holding up OK. Slight hiss in the headphones all the time, even with the volume down - I guess it is the LM386.

But I'm happy and can't wait to get it mounted in a case. Just not looking forward to doing the metalwork!

I was in Portland, Oregon, last September and worked some CW on the USS Blueback W7SUB with Joe KF7UOQ. Small world.

Steve G0KYA

17884. Re: SODA POP resistance measurement

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-10 03:36:30 UTC
From: simon.jack68@...
Topic: 17838 Message: 17884

David (or anyone else)

Have you identified the cause of the low sensitivity issue?

Regards

Simon

17885. Re: [AT_Sprint] Re: SODA POP resistance measurement

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-10 05:04:28 UTC
From: David
Topic: 17838 Message: 17885

Hi Simon,

In my case, the low sensitivity was an alignment issue, I had the LO just outside the pass band of the filter. I found a peak which was outside the pass band which of course leads to low sensitivity - still don't understand why it peaked outside the filter pass band! Double check your LO setting - the filter is only a few hundred hertz wide, so easy to move the LO too far.

Regards,

David
VK3IL

On 10/05/2017 1:36 PM, simon.jack68@... [AT_Sprint] wrote:
>
> David (or anyone else)
>
> Have you identified the cause of the low sensitivity issue?
>
> Regards
>
> Simon
>
>

17886. Re: [AT_Sprint] Re: SODA POP resistance measurement

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-10 11:18:16 UTC
From: Randy Moore
Topic: 17838 Message: 17886

I still have not identified my low sensitivity problem. Nothing I've tried seems to help and no clues good enough for me to figure it out.

73,
Randy, KS4L

> On May 10, 2017, at 12:04 AM, David david@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> Hi Simon,
>
> In my case, the low sensitivity was an alignment issue, I had the LO just outside the pass band of the filter. I found a peak which was outside the pass band which of course leads to low sensitivity - still don't understand why it peaked outside the filter pass band! Double check your LO setting - the filter is only a few hundred hertz wide, so easy to move the LO too far.
>
> Regards,
>
> David
> VK3IL
>
>> On 10/05/2017 1:36 PM, simon.jack68@... [AT_Sprint] wrote:
>>
>> David (or anyone else)
>>
>> Have you identified the cause of the low sensitivity issue?
>>
>> Regards
>>
>> Simon
>>
>
>

17887. Re: Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-10 18:01:02 UTC
From: m.r.johnson4715@...
Topic: 17877 Message: 17887

Also Happy to report that Soda Pop sn:- 010 is up running on 30m, with 5 watts output. One of the first signals found was Beacon SA6RR running half a watt. Calibration worked out well and compared with my FT. 857. The Rx seems lively with adequat volume however I have noticed a number of birdies.
Now to set about the case building.
Vy 73 Mike G0BPU

17888. Re: [AT_Sprint] Re: Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-10 18:57:24 UTC
From: Steven Weber
Topic: 17877 Message: 17888

The Rx seems lively with adequat volume however I have noticed a number of birdies.

That's the down side of the Si chip with all the internal clock multiplying and dividing. But then, it costs a fraction of what a DDS chip does.

Steve KD1JV

17889. Re: [AT_Sprint] Re: Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-10 20:41:19 UTC
From: Shirley Márquez Dúlcey
Topic: 17877 Message: 17889

It also has a lower level of broadband noise. And it can cover bands that the AD9834 can't. The Si5351A can easily get up to 2 meters, and even the 222MHz band may be in reach though it's outside the official specs, whereas the AD9834 requires really careful design of the antialiasing filter to get above 15 meters and 10 meters is a hard limit.

On Wed, May 10, 2017 at 2:57 PM, 'Steven Weber' steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> > □
> The Rx seems lively with adequat volume however I have noticed a number
> of birdies.
>
> That's the down side of the Si chip with all the internal clock
> multiplying and dividing. But then, it costs a fraction of what a DDS chip
> does.
>
> Steve KD1JV
>
>
>

17890. Re: [AT_Sprint] Re: Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-11 14:19:03 UTC
From: jgaffke@...
Topic: 17877 Message: 17890

Possible the birdies are inherent in the Si5351, but I'm not so sure. The Si5351 has two PLL's in it, that second PLL had best be shut down on receive

unless you need it for some reason, but I doubt that's a source of trouble as it's above 600 mhz.
Also shut down all output multisynth dividers except the one required for receive.

Could be the 25mhz reference oscillator into the Si5351, but I doubt it.
That's high enough to not cause much trouble.
Perhaps try shielding the Si5351 with kapton tape and then copper tape over the top.

That processor would be my first suspect.

Would be interesting to power down the Si5351 entirely, but have the processor continuing to do what it does. Inject the VFO via coax from a rig you know and love, perhaps the MTR. See if all them birdies are still there.

If you want to start a fight, go over to the softrock40 group and tell them how much better your DDS chip is than their SiLabs Si570. They've had long discussions of this
and consider it a settled matter. The Si5351 is similar to the Si570,
but it does cut a few corners to make it low power and low cost.

Jerry, KE7ER

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :
The Rx seems lively with adequat volume however I have noticed a number of birdies. That's the down side of the Si chip with all the internal clock multiplying and dividing.
But then, it costs a fraction of what a DDS chip does.

17891. Re: [AT_Sprint] Re: Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-11 15:08:15 UTC
From: jgaffke@...
Topic: 17877 Message: 17891

You're right that the dividers on the ref clock and vco, also in the output multisynth, could be creating all sorts of birdies. But SiLabs seems to have that figured out, the Si570 (now well over a decade old) was clean in that respect. It's all internal, at very low power levels, well isolated from the rest of the chip.
This is not like the old days, where we had a board full of 7490's.

17892. RE: [AT_Sprint] Re: Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-11 17:53:21 UTC
From: <steve.kd1jv@...>
Topic: 17877 Message: 17892

It would be easy to tell if it’s the processor. Tune to a birdie and shut down the processor by grounding the rest pin.
Or, put your finger on the oscillator pins for the processor to shift it’s frequency slightly and see if the birdie moves. Will have to try that and see what happens.

None of my rigs using the AD9834 DDS chip have birdies, but the SP has a different mixer scheme too.

Steve KD1JV

That processor would be my first suspect.
Would be interesting to power down the Si5351 entirely, but have the processor continuing to do what it does. Inject the VFO via coax from a rig you know and love, perhaps the MTR. See if all them birdies are still there.

Jerry, KE7ER

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17893. Re: [AT_Sprint] Re: Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-11 19:44:44 UTC
From: John Sutter
Topic: 17877 Message: 17893

The table below lists the what I heard on mine, all apparently sourced by the Si5351. I have added a programming header to my board so resets were very easy.

I thought I had one at 39.40 that went way with a reset, but I was unable to repeat it.

Btw, this was done without R29 connected. Last time I calibrated it I forgot to reconnect R29. The funny thing is that it does not seem to change the sensitivity of the receiver whether it's connected or not, though if I recall correctly, it does make the birdies quieter if not. I will try to quantify this tonight.

Start

Stop

Width

Source

Notes

2.70

2.70

sharp

Si5351

13.00

13.00

sharp

Si5351

15.25

15.25

sharp

Si5351

26.75

26.75

sharp

Si5351

29.20

29.60

broad

Si5351

32.00

32.00

sharp

Si5351

39.40

39.40

broad

uC

Not repeatable

69.25

69.25

sharp

Si5351

113.55

113.55

sharp

Si5351

125.75

125.75

sharp

Si5351

148.80

148.80

sharp

Si5351

On 5/11/2017 10:53 AM, steve.kd1jv@... [AT_Sprint] wrote:

It would be easy to tell if it’s the processor. Tune to a birdie and shut down the processor by grounding the rest pin.

Or, put your finger on the oscillator pins for the processor to shift it’s frequency slightly and see if the birdie moves. Will have to try that and see what happens.

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Steve KD1JV

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to do what it does. Inject the VFO via coax from a rig you know and love, perhaps the MTR.

See if all them birdies are still there.

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17894. Battery back up in MTR-5B and 4B rigs

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-11 20:25:30 UTC
From: steve.kd1jv@...
Topic: 17894 Message: 17894

Those of you who have a MTR-5B or MTR-4B have likely noticed that the coin cell battery for back up and running the RTC does not last long. And when it runs down, it can cause start up or hang up problems when the power to the rig is turned on.

The easiest solution is to simply remove the coin cell and forget about using the clock feature.

Another solution to this problem is to replace the coin cell with two "AAA" batteries. These should keep the RTC running and the data backed up for a goodly long time.

I've discovered that a 2X AAA battery holder will fit inside the 5B case and since the 4B case is much larger, no problem there either. Attach the battery holder to the bottom of the case in the area between the jacks and coin cell holder with a piece of thin double sided tape. You could remove the coin cell holder to make a little more room.

73, Steve KD1JV

17895. Re: [AT_Sprint] Re: Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-12 19:13:39 UTC
From: John Sutter
Topic: 17877 Message: 17895

I soldered R29 back in.
The volume became much louder and I had to reduce the volume to avoid distortion
The sensitivity was the same. I could discern a -120dB signal on the audio spectrum analyzer on each and I could just barely hear it.

I used Visual Analyzer to monitor the signal:
http://www.sillanumsoft.org/

I scanned from 14.000 to 14.150 MHz again with R29 in and recorded 94 tones along the way. I didn't test them all to check against the uC, but of those I did check, none were active with the uC in reset.

I did not adjust CT1 or CT2 to see if that would change the tones
My impression was that the radio was noisier with R29 installed.
Perhaps a voltage divider/pot between Q16 and C43 would help?

- John

On 5/11/2017 12:44 PM, John Sutter wrote:

The table below lists the what I heard on mine, all apparently sourced by the Si5351. I have added a programming header to my board so resets were very easy.

I thought I had one at 39.40 that went way with a reset, but I was unable to repeat it.

Btw, this was done without R29 connected. Last time I calibrated it I forgot to reconnect R29. The funny thing is that it does not seem to change the sensitivity of the receiver whether it's connected or not, though if I recall correctly, it does make the birdies quieter if not. I will try to quantify this tonight.

Start

Stop

Width

Source

Notes

2.70

2.70

sharp

Si5351

13.00

13.00

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Si5351

15.25

15.25

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Si5351

26.75

26.75

sharp

Si5351

29.20

29.60

broad

Si5351

32.00

32.00

sharp

Si5351

39.40

39.40

broad

uC

Not repeatable

69.25

69.25

sharp

Si5351

113.55

113.55

sharp

Si5351

125.75

125.75

sharp

Si5351

148.80

148.80

sharp

Si5351

On 5/11/2017 10:53 AM, steve.kd1jv@... [AT_Sprint] wrote:

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None of my rigs using the AD9834 DDS chip have birdies, but the SP has a different mixer scheme too.

Steve KD1JV

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to do what it does. Inject the VFO via coax from a rig you know and love, perhaps the MTR.

See if all them birdies are still there.

Jerry, KE7ER

---In AT_Sprint@yahoogroups.com, wrote :

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But then, it costs a fraction of what a DDS chip does.

17896. Re: [AT_Sprint] Re: Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-13 01:45:00 UTC
From: Steve Saslow
Topic: 17877 Message: 17896

It's not that I am hating the birdies and encoder-rotation-related switching-clicking sounds...but these appear to be a lot unlike what I hear in the other KD1JV rigs I've encountered. I do want to see if they can be made to go away...but I need some more guidance:

I think the processor Steve is referring to is the ATMEGA328, U6, connected to a 16 mHz crystal (the Si5351 is not said processor; it's the ___? -clock chip, connected to a 25 mHz crystal, - yes?). Is the processor rest pin (which I could try grounding, to see if that affects a birdie) = pin number 1? on the schematic on pg 13, the pin numbers are placed above the wire lines/do I have this correct? I don't want to short the wrong pin to ground and ruin something!

And: the below-refered-to oscillator pins are - - which ones? perhaps, pins 9 and 10?

I apologize, for not my un-up-to-speed-ness!

-Steve k7ew SP 063

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Thursday, May 11, 2017 10:53 AM
To: jgaffke@... [AT_Sprint]
Subject: RE: [AT_Sprint] Re: Soda Pop 40m S/N 011 lives!

It would be easy to tell if it’s the processor. Tune to a birdie and shut down the processor by grounding the rest pin.
Or, put your finger on the oscillator pins for the processor to shift it’s frequency slightly and see if the birdie moves. Will have to try that and see what happens.

None of my rigs using the AD9834 DDS chip have birdies, but the SP has a different mixer scheme too.

Steve KD1JV

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Jerry, KE7ER

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :
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17897. Re: [AT_Sprint] Re: Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-13 02:20:50 UTC
From: Shirley Márquez Dúlcey
Topic: 17877 Message: 17897

Something that's worth trying: change the second parameter of the call to si5351.set_freq in the PLLwrite() function to SI5351_PLL_FIXED instead of 0ULL. That will slightly decrease the frequency accuracy of the radio because it will be forced to accept less accurate combinations of PLL frequencies, but it's supposed to lead to fewer tuning glitches.

On Fri, May 12, 2017 at 9:45 PM, Steve Saslow k7ew@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> It's not that I am hating the birdies and encoder-rotation-related
> switching-clicking sounds...but these appear to be a lot unlike what I hear
> in the other KD1JV rigs I've encountered. I do want to see if they can be
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> birdie) = pin number 1? on the schematic on pg 13, the pin numbers are
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>
> And: the below-refered-to oscillator pins are - - which ones?
> perhaps, pins 9 and 10?
>
> I apologize, for not my un-up-to-speed-ness!
>
> -Steve k7ew SP 063
>
>
> ------------------------------
> *From:* AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf
> of steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
> *Sent:* Thursday, May 11, 2017 10:53 AM
> *To:* jgaffke@... [AT_Sprint]
> *Subject:* RE: [AT_Sprint] Re: Soda Pop 40m S/N 011 lives!
>
>
>
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>
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> It would be easy to tell if it’s the processor. Tune to a birdie and shut
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>
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> None of my rigs using the AD9834 DDS chip have birdies, but the SP has a
> different mixer scheme too.
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>
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>
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> See if all them birdies are still there.
>
>
>
>
>
> Jerry, KE7ER
>
>
> ---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :
>
> The Rx seems lively with adequat volume however I have noticed a number of
> birdies.
>
> That's the down side of the Si chip with all the internal clock
> multiplying and dividing.
>
> But then, it costs a fraction of what a DDS chip does.
>
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>

17898. Re: [AT_Sprint] Re: Soda Pop 40m S/N 011 lives!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-13 02:26:46 UTC
From: Shirley Márquez Dúlcey
Topic: 17877 Message: 17898

I've been doing some experiments with version 2 of the si5351 library in the code for my standalone Si5351A-based VFO and signal generator. It has a different API so it's not a drop-in replacement. It always does the fixed PLL frequency if you use the simple interface (si5351.set_freq rather than si5351.set_freq_manually), so I think it's correct to say that Jason Mildrum thinks it's the right thing to do in most cases. I believe the additional tuning errors are measured in millihertz for the frequencies we're working with, so unless you're planning to use the thing as a lab instrument they can be ignored.

17899. Re: [AT_Sprint] Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-14 01:26:55 UTC
From: Shirley Márquez Dúlcey
Topic: 17864 Message: 17899

One more part:

The regulator marked 17LP50 on the schematic and 17L50 on the part is an LPST50T3G made by ON Semiconductor. Data sheet here: https://www.onsemi.com/pub/Collateral/NCP1117-D.PDF Digi-Key part number: NCP1117LPST50T3GOSCT-ND
Cost: 0.43 in quantity one

I haven't been able to place what the other regulator is. There are plenty of 3.3V low dropout regulators in SOT-23 packages but I can't find a match for the package marking (A5HQ). And I'm puzzled by the use of pin 4; on most of the parts that pin isn't connected, though I did find one that connected it as a noise bypass. I suspect that any of a number of parts would work acceptably there.

On Sun, May 7, 2017 at 2:19 PM, John Sutter jds@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> I did ask Steve if he had a BOM he could share, but he didn't so I decided
> to
> work on my own. Any group help would be appreciated.
>
> I definitely went with parts better than probably necessary, but I did the
> BOM for a project
> I was going to build one of. Though like you said, when I order an SMD
> part I usually round
> up at least 10 because I know I'll need one again and kick myself if I
> didn't order spares.
> As it was my son learned a lot about the flight and camouflage
> characteristics of SMD parts.
> He was working at an engineering rework station, so when he scraped the
> bench he would
> find 10 or 20 parts which presented more learning opportunities for him
> :-)
>
> I also didn't know the requirements of the design. I am comfortable in
> the digital world where
> we use those bypass caps quite a bit, but I saw them used in analog
> sections so I went with the
> cheapest of the best parts.
>
> Seeing the 51V zener in the front end made me want to go with 100V parts.
>
> I think the only 1206 caps are in the bandpass filter which are all in the

> 100s of pF
> range. I was putting this together around 3AM one night, so there could
> be mistakes :-)
>
> Building and costing a production BOM would be a different exercise.
>
> Thanks for the feedback,
>
> - John
>
> On 5/7/2017 10:14 AM, Shirley Márquez Dúlcey mark@... [AT_Sprint]
> wrote:
>
>
> John Sutter's BOM spreadsheet substantially overstates the total cost of
> some of the resistors. The thing is that it costs 10 cents to buy one
> resistor, mostly to compensate the cost of having somebody pull out a tape
> and cut off one resistor. But ten resistors of the same value are 21 cents,
> so if you need more than one of a value you might as well buy ten.
>
> The capacitors are overspecified. Steve surely used the less costly 50V
> parts, not 100V parts. The more detailed part list for the MTR-5B lists the
> voltage ratings and all the caps in that radio are 50V. I believe the BOM
> also specifies the .001uF and .01uF caps incorrectly. They are probably X7R
> dielectric, not 1206 C0G (aka NP0), and the .01uF caps are 0805 size rather
> than 1206. They are used for bypassing so the more costly C0G parts are not
> needed. (But avoid the even cheaper Y5V parts; there are some serious
> gotchas with those.)
>
> The same buying logic applies to the capacitors. For example, if you buy
> the correct sort of .01uF capacitor (like this one: 478-5780-1-ND) they
> cost 10 cents for one or 34 cents for ten. If you plan to do other SMD
> building you should consider buying at least 100 of the three most common
> bypass values (.001uF, .01uF, and .1uF); you will use them up quickly and
> the price drops even more; 100 of those .01uF caps cost $1.52.
>
> Resistors, NP0 capacitors, and ceramic bypass capacitors from different
> manufacturers are freely interchangeable in nearly all cases. If you have
> an assortment pack of SMD parts as some of us do, or tapes of SMD parts
> that you picked up at a hamfest, you can use those.
>
> The parts where we really need the specs of the originals are the SMD
> inductors, especially the ones used in the bandpass filters. Substituting
> other parts is likely to change the performance of the circuit. An official
> BOM from Steve for those parts would be ideal, but I don't know if he plans
> to release one.
>
> On Sun, May 7, 2017 at 7:41 AM, John Sutter jds@... [AT_Sprint] <
> AT_Sprint@yahoogroups.com> wrote:
>

>>
>>
>> The resistors are 0805s from my measurements.
>> Most of the caps are 0805s as well, though a few are 1208s
>>
>> I've been working on a BOM, but it is not complete.
>> http://www.sutters.com/AmateurRadio/SODA_POP/SODA_POP_BOM.csv
>>
>> I don't have a part number for the display, but I think it's a Tayda part.
>> I'll update the BOM as I get time. I went for C0G caps when possible.
>>
>>
>
>
>

17900. RE: [AT_Sprint] Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-14 03:00:04 UTC
From: Steven Weber
Topic: 17864 Message: 17900
Attachments: 1 described; binary payloads are missing from this source WARC

The 3.3V reg has a long Mouser part number 579-TC1014-3.3VCT713

The 4th pin is a noise bypass.

One more part:

The regulator marked 17LP50 on the schematic and 17L50 on the part is an LPST50T3G made by ON Semiconductor. Data sheet here: https://www.onsemi.com/pub/Collateral/NCP1117-D.PDF
 Digi-Key part number: NCP1117LPST50T3GOSCT-ND Cost: 0.43 in quantity one

I haven't been able to place what the other regulator is. There are plenty of 3.3V low dropout regulators in SOT-23 packages but I can't find a match for the package marking (A5HQ). And I'm puzzled by the use of pin 4; on most of the parts that pin isn't connected, though I did find one that connected it as a noise bypass. I suspect that any of a number of parts would work acceptably there.

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Thanks for the feedback,

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On 5/7/2017 10:14 AM, Shirley Márquez Dúlcey mark@... [AT_Sprint] wrote:

John Sutter's BOM spreadsheet substantially overstates the total cost of some of the resistors. The thing is that it costs 10 cents to buy one resistor, mostly to compensate the cost of having somebody pull out a tape and cut off one resistor. But ten resistors of the same value are 21 cents, so if you need more than one of a value you might as well buy ten.

The capacitors are overspecified. Steve surely used the less costly 50V parts, not 100V parts. The more detailed part list for the MTR-5B lists the voltage ratings and all the caps in that radio are 50V. I believe the BOM also specifies the .001uF and .01uF caps incorrectly. They are probably X7R dielectric, not 1206 C0G (aka NP0), and the .01uF caps are 0805 size rather than 1206. They are used for bypassing so the more costly C0G parts are not needed. (But avoid the even cheaper Y5V parts; there are some serious gotchas with those.)

The same buying logic applies to the capacitors. For example, if you buy the correct sort of .01uF capacitor (like this one: 478-5780-1-ND) they cost 10 cents for one or 34 cents for ten. If you plan to do other SMD building you should consider buying at least 100 of the three most common bypass values (.001uF, .01uF, and .1uF); you will use them up quickly and the price drops even more; 100 of those .01uF caps cost $1.52.

Resistors, NP0 capacitors, and ceramic bypass capacitors from different manufacturers are freely interchangeable in nearly all cases. If you have an assortment pack of SMD parts as some of us do, or tapes of SMD parts that you picked up at a hamfest, you can use those.

The parts where we really need the specs of the originals are the SMD inductors, especially the ones used in the bandpass filters. Substituting other parts is likely to change the performance of the circuit. An official BOM from Steve for those parts would be ideal, but I don't know if he plans to release one.

On Sun, May 7, 2017 at 7:41 AM, John Sutter jds@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

The resistors are 0805s from my measurements.
Most of the caps are 0805s as well, though a few are 1208s

I've been working on a BOM, but it is not complete.
http://www.sutters.com/AmateurRadio/SODA_POP/SODA_POP_BOM.csv

I don't have a part number for the display, but I think it's a Tayda part.
I'll update the BOM as I get time. I went for C0G caps when possible.

17901. Re: [AT_Sprint] Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-14 15:29:08 UTC
From: ohwenzelph@...
Topic: 17864 Message: 17901

Is the display "common cathode"?

Because Steve gives the schematic of the display in the manual, I think if I get the right kind of 4 character 7 segment display, I ought to be able to remote wire it up to work correctly, even if the pin placements don't match the original that plugs directly into the board.

Thx jerry aa1of

17902. Re: [AT_Sprint] Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-14 16:14:18 UTC
From: Shirley Márquez Dúlcey
Topic: 17864 Message: 17902

Here is the one reference in English to a display with the part number on
the display I received: http://www.yoycart.com/Product/19972104127/

0.36', common cathode, green.

For whatever reason, green modules seem to be scarce on eBay and other
sources. You can get them very inexpensively in red. The pin arrangement
looks the same so it's likely the wiring diagram also is, but the sellers
don't provide info.

Here is one example:
http://www.ebay.com/itm/10Pcs-0-36-Four-Digit-Led-Display-Seven-Segment-Common-Cathode-Dig
ital-Tube-MA-/131959579484?hash=item1eb967635c:g:RmIAAOSwtnpXovRF
Note that the $4.60 price is for TEN display modules!

On Sun, May 14, 2017 at 11:29 AM, ohwenzelph@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> Is the display "common cathode"?
>
> Because Steve gives the schematic of the display in the manual, I think if
> I get the right kind of 4 character 7 segment display, I ought to be able
> to remote wire it up to work correctly, even if the pin placements don't
> match the original that plugs directly into the board.
>
> Thx jerry aa1of
>
>

17903. Re: [AT_Sprint] Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-14 16:29:58 UTC
From: Shirley Márquez Dúlcey
Topic: 17864 Message: 17903

Green is available, I found some. But they cost more. An example:
http://www.ebay.com/itm/10-PCS-4-Digits-0-36-GREEN-7-SEGMENT-LED-DISPLAY-COMMON-CATHODE-12-Pins-4-digit-/371079515704

On Sun, May 14, 2017 at 12:14 PM, Shirley Márquez Dúlcey <mark@...>
wrote:

> Here is the one reference in English to a display with the part number on
> the display I received: http://www.yoycart.com/Product/19972104127/
>
> 0.36', common cathode, green.
>
> For whatever reason, green modules seem to be scarce on eBay and other
> sources. You can get them very inexpensively in red. The pin arrangement
> looks the same so it's likely the wiring diagram also is, but the sellers
> don't provide info.
>
> Here is one example: http://www.ebay.com/itm/10Pcs-0-36-Four-Digit-Led-
> Display-Seven-Segment-Common-Cathode-Digital-Tube-MA-/131959579484?hash=
> item1eb967635c:g:RmIAAOSwtnpXovRF Note that the $4.60 price is for TEN
> display modules!
>
>
> On Sun, May 14, 2017 at 11:29 AM, ohwenzelph@... [AT_Sprint] <
> AT_Sprint@yahoogroups.com> wrote:
>
>>
>>
>> Is the display "common cathode"?
>>
>> Because Steve gives the schematic of the display in the manual, I think
>> if I get the right kind of 4 character 7 segment display, I ought to be
>> able to remote wire it up to work correctly, even if the pin placements
>> don't match the original that plugs directly into the board.
>>
>> Thx jerry aa1of
>>
>>
>
>

17904. Re: [AT_Sprint] Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-14 16:40:40 UTC
From: Shirley Márquez Dúlcey
Topic: 17864 Message: 17904

I wonder how they measure the digits! The SODA POP display is certainly
more than 0.36" tall.

On Sun, May 14, 2017 at 12:29 PM, Shirley Márquez Dúlcey <mark@...>
wrote:

> Green is available, I found some. But they cost more. An example:
> http://www.ebay.com/itm/10-PCS-4-Digits-0-36-GREEN-7-SEGMENT-LED-DISPLAY-
> COMMON-CATHODE-12-Pins-4-digit-/371079515704
>
> On Sun, May 14, 2017 at 12:14 PM, Shirley Márquez Dúlcey <mark@...
> > wrote:
>
>> Here is the one reference in English to a display with the part number on
>> the display I received: http://www.yoycart.com/Product/19972104127/
>>
>> 0.36', common cathode, green.
>>
>> For whatever reason, green modules seem to be scarce on eBay and other
>> sources. You can get them very inexpensively in red. The pin arrangement
>> looks the same so it's likely the wiring diagram also is, but the sellers
>> don't provide info.
>>
>> Here is one example: http://www.ebay.com/itm/10Pcs-0-36-Four-Digit-Led-D
>> isplay-Seven-Segment-Common-Cathode-Digital-Tube-MA-/1319595
>> 79484?hash=item1eb967635c:g:RmIAAOSwtnpXovRF Note that the $4.60 price
>> is for TEN display modules!
>>
>>
>> On Sun, May 14, 2017 at 11:29 AM, ohwenzelph@... [AT_Sprint] <
>> AT_Sprint@yahoogroups.com> wrote:
>>
>>>
>>>
>>> Is the display "common cathode"?
>>>
>>> Because Steve gives the schematic of the display in the manual, I think
>>> if I get the right kind of 4 character 7 segment display, I ought to be
>>> able to remote wire it up to work correctly, even if the pin placements
>>> don't match the original that plugs directly into the board.
>>>
>>> Thx jerry aa1of
>>>
>>>
>>

>>
>

17905. Re: [AT_Sprint] Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-14 16:48:03 UTC
From: Shirley Márquez Dúlcey
Topic: 17864 Message: 17905

My lesson for the day: think and measure before posting. I got out a ruler.
0.36" it is.

On Sun, May 14, 2017 at 12:40 PM, Shirley Márquez Dúlcey <mark@...>
wrote:

> I wonder how they measure the digits! The SODA POP display is certainly
> more than 0.36" tall.
>
>
> On Sun, May 14, 2017 at 12:29 PM, Shirley Márquez Dúlcey <mark@...
> > wrote:
>
>> Green is available, I found some. But they cost more. An example:
>> http://www.ebay.com/itm/10-PCS-4-Digits-0-36-GREEN-
>> 7-SEGMENT-LED-DISPLAY-COMMON-CATHODE-12-Pins-4-digit-/371079515704
>>
>> On Sun, May 14, 2017 at 12:14 PM, Shirley Márquez Dúlcey <
>> mark@...> wrote:
>>
>>> Here is the one reference in English to a display with the part number
>>> on the display I received: http://www.yoycart.com/Product/19972104127/
>>>
>>> 0.36', common cathode, green.
>>>
>>> For whatever reason, green modules seem to be scarce on eBay and other
>>> sources. You can get them very inexpensively in red. The pin arrangement
>>> looks the same so it's likely the wiring diagram also is, but the sellers
>>> don't provide info.
>>>
>>> Here is one example: http://www.ebay.com/itm/10Pcs-0-36-Four-Digit-Led-D
>>> isplay-Seven-Segment-Common-Cathode-Digital-Tube-MA-/1319595
>>> 79484?hash=item1eb967635c:g:RmIAAOSwtnpXovRF Note that the $4.60 price
>>> is for TEN display modules!
>>>
>>>
>>> On Sun, May 14, 2017 at 11:29 AM, ohwenzelph@... [AT_Sprint] <
>>> AT_Sprint@yahoogroups.com> wrote:
>>>
>>>>
>>>>
>>>> Is the display "common cathode"?
>>>>
>>>> Because Steve gives the schematic of the display in the manual, I think
>>>> if I get the right kind of 4 character 7 segment display, I ought to be

>>>> able to remote wire it up to work correctly, even if the pin placements
>>>> don't match the original that plugs directly into the board.
>>>>
>>>> Thx jerry aa1of
>>>>
>>>>
>>>
>>>
>>
>

17906. Soda Pop for sale

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-14 17:08:50 UTC
From: kk3t.ben@...
Topic: 17906 Message: 17906

Still in the box. Nothing opened. Please contact me off list if you're interested. $75 shipped. Thanks.

17907. Re: Soda Pop for sale

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-14 19:09:48 UTC
From: kk3t.ben@...
Topic: 17906 Message: 17907

The kit is sold.

17908. Anyone heard from N6MST?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-16 14:19:28 UTC
From: Sean Waite
Topic: 17908 Message: 17908

N6MST sold my friend an MTR, but he hasn't received the radio and we can't seem to get Michael to respond to emails. Does any one know him? Hoping nothing has happened.

Thanks,
Sean Waite, WA1TE

17909. Re: [AT_Sprint] Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 07:52:26 UTC
From: simon.jack68@...
Topic: 17864 Message: 17909

Anyone know of a source for low quantity reasonably priced si5351 chips. low postage costs would be good also. Best i could find is ebay for $3 a chip in lot of five.

Managed to find most of the rest of the components on ebay and tayda for the second board.

Regards

Simon

17910. Re: [AT_Sprint] Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 10:07:35 UTC
From: David
Topic: 17864 Message: 17910

Simon,

RS Components have them for A$1.60+GST in lots of 5 (free shipping).
See: http://au.rs-online.com/web/c/?sra=oss&r=t&searchTerm=si5351
Surprising for RS as they are usually expensive!

73

David
VK3IL

On 17/05/2017 5:52 PM, simon.jack68@... [AT_Sprint] wrote:
>
> Anyone know of a source for low quantity reasonably priced si5351
> chips. low postage costs would be good also. Best i could find is ebay
> for $3 a chip in lot of five.
>
> Managed to find most of the rest of the components on ebay and tayda
> for the second board.
>
> Regards
>
> Simon
>
>

17911. Re: [AT_Sprint] Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 12:00:23 UTC
From: Shirley Márquez Dúlcey
Topic: 17864 Message: 17911

Here in the US, those chips are approximately $1 each from distributors, so your price of AUD$1.60 is about right. This is one case where you definitely are NOT better off buying from eBay. At the other extreme, the LED displays don't seem to be available from mainstream distributors at all, so buying from the Bay or from sources in China are the only options.

On Wed, May 17, 2017 at 6:07 AM, David david@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Simon,
>
> RS Components have them for A$1.60+GST in lots of 5 (free shipping). See:
> http://au.rs-online.com/web/c/?sra=oss&r=t&searchTerm=si5351
> Surprising for RS as they are usually expensive!
>
> 73
>
> David
> VK3IL
>
> On 17/05/2017 5:52 PM, simon.jack68@yahoo.com.au [AT_Sprint] wrote:
>
>
>
> Anyone know of a source for low quantity reasonably priced si5351 chips.
> low postage costs would be good also. Best i could find is ebay for $3 a
> chip in lot of five.
>
> Managed to find most of the rest of the components on ebay and tayda for
> the second board.
>
> Regards
>
> Simon
>
>
>
>

17912. Re: Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 12:28:14 UTC
From: simon.jack68@...
Topic: 17864 Message: 17912

Thanks David and Shirley. Decent pricing and free shipping from RS?? I had given up on the big suppliers due to pricing and shipping costs. Will have to re-evaluate.

Regards

Simon

17913. Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 15:54:58 UTC
From: simon.jack68@...
Topic: 17843 Message: 17913

Updated the code and then approached this afresh tonight using voltage checks working from audio back and found a strange voltage at the second mixer. Resoldered and heard bandpass noise at last.

Recalibrated and its up and running. Sensitivity seems good. I could hear signals in and out of the noise that were not registering on the s-meter on my IC7300 but not many signals around at the moment. Not exactly a scientific measurement. Looking forward to a bit more activity on the band and to hear some stronger signals.

Spurious signals gone. Not sure where they were coming from.

Regards

Simon VK3ELH

17914. Re: [AT_Sprint] Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 17:38:17 UTC
From: Steve Saslow
Topic: 17843 Message: 17914

'Way to go, Simon! When you say "spurious signals gone", are you referring to birdies, which I get at certain freqs/ some strong, some medium and some weak, -and also: to contact-change-clicking sounds which my encoder rotation seems to be causing...?

What band is you SP on? Mine is on 40meters...

tnx! -Steve k7ew@...

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of simon.jack68@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Wednesday, May 17, 2017 8:54 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Re: Soda Pop hears nothing :(

Updated the code and then approached this afresh tonight using voltage checks working from audio back and found a strange voltage at the second mixer. Resoldered and heard bandpass noise at last.

Recalibrated and its up and running. Sensitivity seems good. I could hear signals in and out of the noise that were not registering on the s-meter on my IC7300 but not many signals around at the moment. Not exactly a scientific measurement. Looking forward to a bit more activity on the band and to hear some stronger signals.

Spurious signals gone. Not sure where they were coming from.

Regards

Simon VK3ELH

17915. MTR battery voltage read-out

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 18:44:33 UTC
From: Fred Maas
Topic: 17915 Message: 17915

I have an MTR3 and an MTR5 (and an older ATS4). These wonderful radios feature a battery voltage read-out which would be more meaningful if accurate. They do give a relative indication, but the actual read-out is off by quite a few tenths of a volt, different amount for each radio.

I think there is a component that might have its value changed to adjust the voltage read-out to be accurate? Could someone point me at this component???

Thanks,

Fred kt5x

17916. Re: [AT_Sprint] Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 19:00:32 UTC
From: jgaffke@...
Topic: 17843 Message: 17916

In the Bitx20 groups.io forum, they're seeing that birdies are a function of how hard the Si5351 drives the mixer, which is controlled through Si5351 registers. So a code change could take out them birds. The newest etherkit libraries beyond v2.0.1 seem to momentarily shut down the Si5351 PLL whenever the frequency is changed, which brings on tuning clicks. But v2.0.1 is golden.

Jerry, KE7ER

---In AT_Sprint@yahoogroups.com, <k7ew@...> wrote :

'Way to go, Simon! When you say "spurious signals gone", are you referring to birdies, which I get at certain freqs/ some strong, some medium and some weak, -and also: to contact-change-clicking sounds which my encoder rotation seems to be causing...?
What band is you SP on? Mine is on 40meters...
tnx! -Steve k7ew@...

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of simon.jack68@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Wednesday, May 17, 2017 8:54 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Re: Soda Pop hears nothing :(

Updated the code and then approached this afresh tonight using voltage checks working from audio back and found a strange voltage at the second mixer. Resoldered and heard bandpass noise at last.

Recalibrated and its up and running. Sensitivity seems good. I could hear signals in and out of the noise that were not registering on the s-meter on my IC7300 but not many signals around at the moment. Not exactly a scientific measurement. Looking forward to a bit more activity on the band and to hear some stronger signals.

Spurious signals gone. Not sure where they were coming from.

Regards

Simon VK3ELH

17917. Re: [AT_Sprint] Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 19:16:51 UTC
From: John Sutter
Topic: 17843 Message: 17917

I've noted that my Soda Pop seems to work just as well without R29 installed (less drive to the mixer) giving fewer noticeable birdies. There's got to be a better way to reduce the drive than that, but for now it works.

- John

On 5/17/2017 12:00 PM, jgaffke@... [AT_Sprint] wrote:

In the Bitx20 groups.io forum, they're seeing that birdies are a function of how hard the Si5351 drives the mixer, which is controlled through Si5351 registers. So a code change could take out them birds.

The newest etherkit libraries beyond v2.0.1 seem to momentarily shut down the Si5351 PLL whenever the frequency is changed, which brings on tuning clicks. But v2.0.1 is golden.

Jerry, KE7ER

---In AT_Sprint@yahoogroups.com, wrote :

'Way to go, Simon! When you say "spurious signals gone", are you referring to birdies, which I get at certain freqs/ some strong, some medium and some weak, -and also: to contact-change-clicking sounds which my encoder rotation seems to be causing...?

What band is you SP on? Mine is on 40meters...

tnx! -Steve k7ew@...

From: AT_Sprint@yahoogroups.com on behalf of simon.jack68@... [AT_Sprint]
Sent: Wednesday, May 17, 2017 8:54 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Re: Soda Pop hears nothing :(

Updated the code and then approached this afresh tonight using voltage checks working from audio back and found a strange voltage at the second mixer. Resoldered and heard bandpass noise at last.

Recalibrated and its up and running. Sensitivity seems good. I could hear signals in and out of the noise that were not registering on the s-meter on my IC7300 but not many signals around at the moment. Not exactly a scientific measurement. Looking forward to a bit more activity on the band and to hear some stronger signals.

Spurious signals gone. Not sure where they were coming from.

Regards

Simon VK3ELH

17918. Re: [AT_Sprint] MTR battery voltage read-out

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 19:28:47 UTC
From: Dale Putnam
Topic: 17915 Message: 17918

What makes it inaccurate Fred?

The measurement is taken directly in the radio, not at the battery.

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of 'Fred Maas' just.one.hill@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Wednesday, May 17, 2017 12:44 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] MTR battery voltage read-out

I have an MTR3 and an MTR5 (and an older ATS4). These wonderful radios feature a battery voltage read-out which would be more meaningful if accurate. They do give a relative indication, but the actual read-out is off by quite a few tenths of a volt, different amount for each radio.

I think there is a component that might have its value changed to adjust the voltage read-out to be accurate? Could someone point me at this component???

Thanks,

Fred kt5x

17919. Re: [AT_Sprint] Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 19:43:45 UTC
From: Shirley Márquez Dúlcey
Topic: 17843 Message: 17919

The Si5351A can be changed to any of four output levels in software. You do that in the library by calling si5351.drive_strength(). The chip defaults to the highest drive strength (8mA). The chip's jitter specs are only guaranteed at the highest setting, so changing it in software may not be the best method in the long term, but it's an easy way to experiment with the effects of different signal levels into the mixer.

On Wed, May 17, 2017 at 3:16 PM, John Sutter jds@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> I've noted that my Soda Pop seems to work just as well without R29
> installed
> (less drive to the mixer) giving fewer noticeable birdies. There's got to
> be
> a better way to reduce the drive than that, but for now it works.
>
> - John
>
>
>
> On 5/17/2017 12:00 PM, jgaffke@yahoo.com [AT_Sprint] wrote:
>
>
>
> In the Bitx20 groups.io forum, they're seeing that birdies are a function
> of how hard the Si5351 drives the mixer, which is controlled through Si5351
> registers. So a code change could take out them birds.
> The newest etherkit libraries beyond v2.0.1 seem to momentarily shut down
> the Si5351 PLL whenever the frequency is changed, which brings on tuning
> clicks. But v2.0.1 is golden.
>
> Jerry, KE7ER
>
>
> ---In AT_Sprint@yahoogroups.com, <k7ew@...> <k7ew@...> wrote :
>
> 'Way to go, Simon! When you say "spurious signals gone", are you
> referring to birdies, which I get at certain freqs/ some strong, some
> medium and some weak, -and also: to contact-change-clicking sounds which my
> encoder rotation seems to be causing...?
>
> What band is you SP on? Mine is on 40meters...
>

> tnx! -Steve k7ew@...
>
>
> ------------------------------
> *From:* AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com>
> <AT_Sprint@yahoogroups.com> on behalf of simon.jack68@... [AT_Sprint]
> <AT_Sprint@yahoogroups.com> <AT_Sprint@yahoogroups.com>
> *Sent:* Wednesday, May 17, 2017 8:54 AM
> *To:* AT_Sprint@yahoogroups.com
> *Subject:* [AT_Sprint] Re: Soda Pop hears nothing :(
>
>
> Updated the code and then approached this afresh tonight using voltage
> checks working from audio back and found a strange voltage at the second
> mixer. Resoldered and heard bandpass noise at last.
>
> Recalibrated and its up and running. Sensitivity seems good. I could hear
> signals in and out of the noise that were not registering on the s-meter on
> my IC7300 but not many signals around at the moment. Not exactly a
> scientific measurement. Looking forward to a bit more activity on the band
> and to hear some stronger signals.
>
> Spurious signals gone. Not sure where they were coming from.
>
> Regards
>
>
>
>
> Simon VK3ELH
>
>
>
>
>

17920. Re: [AT_Sprint] MTR battery voltage read-out

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 19:45:00 UTC
From: Hank Greeb
Topic: 17915 Message: 17920

Some of the units have a series diode for polarity protection.? That makes the internal voltage about 0.5 to 0.7 volts lower than the battery voltage.

Then there is probably some variability due to precision of resistors, etc., within the voltage measuring circuit.

72/73 de n8xx Hg
QRP >99.44% of the time

On 5/17/2017 3:28 PM, Dale Putnam daleputnam@... [AT_Sprint] wrote:

What makes it inaccurate Fred?

The measurement is taken directly in the radio, not at the battery.

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"

1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com on behalf of 'Fred Maas' just.one.hill@... [AT_Sprint]
Sent: Wednesday, May 17, 2017 12:44 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] MTR battery voltage read-out
?

?

I have an MTR3 and an MTR5 (and an older ATS4).? These wonderful radios feature a battery voltage read-out which would be more meaningful if accurate.? They do give a relative indication, but the actual read-out is off by quite a few tenths of a volt, different amount for each radio.

?

I think there is a component that might have its value changed to adjust the voltage read-out to be accurate?? Could someone point me at this component???

?

Thanks,

?

Fred kt5x

17921. Re: [AT_Sprint] MTR battery voltage read-out

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 19:55:44 UTC
From: Colin Evans
Topic: 17915 Message: 17921

My MTR'S read 0.4V under.

I guess you could either modify the firmware or change the resistive divider feeding the MSP 430 analog in pin.

Colin

On 17 May 2017 20:29, "Dale Putnam daleputnam@... [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:

What makes it inaccurate Fred?

The measurement is taken directly in the radio, not at the battery.

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of 'Fred Maas' just.one.hill@gmail.com [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Wednesday, May 17, 2017 12:44 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] MTR battery voltage read-out

I have an MTR3 and an MTR5 (and an older ATS4). These wonderful radios feature a battery voltage read-out which would be more meaningful if accurate. They do give a relative indication, but the actual read-out is off by quite a few tenths of a volt, different amount for each radio.

I think there is a component that might have its value changed to adjust the voltage read-out to be accurate? Could someone point me at this component???

Thanks,

Fred kt5x

17922. Re: [AT_Sprint] Re: Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 20:00:54 UTC
From: Shirley Márquez Dúlcey
Topic: 17864 Message: 17922

Here in the US at least, the major distributors also have good pricing on the jellybean parts (resistors and capacitors) so long as you buy them in quantities large enough to stock your shack a bit. For example, one SMD resistor from Digi-Key is 10 cents, but 10 of the same value can be bought for under 20 cents total, and 100 of them cost less than a dollar. (The exact price depends on value and manufacturer.) Basically, one of ANY part is a minimum of 10 cents to justify somebody's effort to bag it.

On Wed, May 17, 2017 at 8:28 AM, simon.jack68@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Thanks David and Shirley. Decent pricing and free shipping from RS?? I
> had given up on the big suppliers due to pricing and shipping costs. Will
> have to re-evaluate.
>
> Regards
>
>
>
> Simon
>
>
>

17923. Re: [AT_Sprint] MTR battery voltage read-out

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-17 22:00:44 UTC
From: Steven Weber
Topic: 17915 Message: 17923

One of the resistors is 5%, niether of them are quite the exact value needed because non-standard values are required and then there is the tollerance of the band gap in the processor. Sometimes these add up pretty close to spot one, other times off by a few 100 mV. The only solution is to add a trimmer pot so it can be calibrated.

Steve KD1JV
What makes it inaccurate Fred?
The measurement is taken directly in the radio, not at the battery.

Have a great day,
--... ...-- Dale - WC7S in Wy

17924. RE: [AT_Sprint] MTR battery voltage read-out

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-18 00:31:48 UTC
From: Fred Maas
Topic: 17915 Message: 17924

Thank you all. In the field I had the sensation that it was reading the voltage quite low, but I just carefully evaluated them and find that:

The MTR5B reads .2v low

The ATS4B reads .3v high

The MTR3B reads right on.

So there is no reason to try to adjust it.

These three work horses have done hundreds of SOTA activations (each) and they all continue to function as they did when first built.

73 fred kt5x

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Wednesday, May 17, 2017 1:56 PM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] MTR battery voltage read-out

My MTR'S read 0.4V under.

I guess you could either modify the firmware or change the resistive divider feeding the MSP 430 analog in pin.

Colin

On 17 May 2017 20:29, "Dale Putnam daleputnam@... <mailto:daleputnam@...> [AT_Sprint]" <AT_Sprint@yahoogroups.com <mailto:AT_Sprint@yahoogroups.com> > wrote:

What makes it inaccurate Fred?

The measurement is taken directly in the radio, not at the battery.

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"

1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com <mailto:AT_Sprint@yahoogroups.com> <AT_Sprint@yahoogroups.com <mailto:AT_Sprint@yahoogroups.com> > on behalf of 'Fred Maas' just.one.hill@... <mailto:just.one.hill@...> [AT_Sprint] <AT_Sprint@yahoogroups.com <mailto:AT_Sprint@yahoogroups.com> >
Sent: Wednesday, May 17, 2017 12:44 PM

To: AT_Sprint@yahoogroups.com <mailto:AT_Sprint@yahoogroups.com>
Subject: [AT_Sprint] MTR battery voltage read-out

I have an MTR3 and an MTR5 (and an older ATS4). These wonderful radios feature a battery voltage read-out which would be more meaningful if accurate. They do give a relative indication, but the actual read-out is off by quite a few tenths of a volt, different amount for each radio.

I think there is a component that might have its value changed to adjust the voltage read-out to be accurate? Could someone point me at this component???

Thanks,

Fred kt5x

17925. Re: Anyone heard from N6MST?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-18 00:43:19 UTC
From: mst72481@...
Topic: 17908 Message: 17925

Funny you should post this, Sean. Something did happen to me! Doc says I'm fine but I lost a few days in there. Anyhow, I just sent Chris his radio this afternoon and the tracking number is in his email.

I don't know anyone in this group very well but thanks for checking on me :)

Michael N6MST

17926. Re: [AT_Sprint] Re: Anyone heard from N6MST?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-18 01:23:41 UTC
From: Hank Greeb
Topic: 17908 Message: 17926

Michael:

We was worried about you, OM, quite worried. Glad your doc helped you pull through!

Personally, I'm recovering from a 2nd hip replacement. Had a after operation checkup today. My doc says I'm doing very well, after only 12 days of recuperation.

72/73 de n8xx Hg
QRP >99.44% of the time

On 5/17/2017 8:43 PM, mst72481@... [AT_Sprint] wrote:

Funny you should post this, Sean. Something did happen to me! Doc says I'm fine but I lost a few days in there. Anyhow, I just sent Chris his radio this afternoon and the tracking number is in his email.

I don't know anyone in this group very well but thanks for checking on me :)

Michael N6MST

17927. Re: [AT_Sprint] Re: Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-18 01:36:07 UTC
From: David Giddy
Topic: 17864 Message: 17927

Here in VK, I find that if I need to order a decent number of components, Digikey is the best value (free shipping above A$60) and relatively quick given they seem to have a warehouse in asia now. However, if I need just a few components that I can't get locally (most of the time these days), then RS is a good option due to the free shipping with no minimum order. Not sure how they justify that given everything is sent by courier! Components are usually more expensive from them though.

I also like the BOM feature on Digikey (and Mouser) that allows you to include the circuit board part number with each component. This results in each packaged component having the relevant part number marked on it making board assembly easier and less error prone.

It's certainly worth buying in larger volumes if possible as the price breaks are significant.

73

David
VK3IL

On Thu, May 18, 2017 at 6:00 AM, Shirley Márquez Dúlcey mark@...
[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Here in the US at least, the major distributors also have good pricing on
> the jellybean parts (resistors and capacitors) so long as you buy them in
> quantities large enough to stock your shack a bit. For example, one SMD
> resistor from Digi-Key is 10 cents, but 10 of the same value can be bought
> for under 20 cents total, and 100 of them cost less than a dollar. (The
> exact price depends on value and manufacturer.) Basically, one of ANY part
> is a minimum of 10 cents to justify somebody's effort to bag it.
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> On Wed, May 17, 2017 at 8:28 AM, simon.jack68@... [AT_Sprint] <
> AT_Sprint@yahoogroups.com> wrote:
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>> Thanks David and Shirley. Decent pricing and free shipping from RS?? I
>> had given up on the big suppliers due to pricing and shipping costs. Will
>> have to re-evaluate.
>>
>> Regards
>>
>>

>>
>> Simon
>>
>>
>
>

--

73

David
VK3IL

17928. Re: [AT_Sprint] Re: Anyone heard from N6MST?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-18 03:01:33 UTC
From: Sean Waite
Topic: 17908 Message: 17928

Hi Michael,
Glad you're on the mend. Never good when injuries take away memory.

Sean WA1TE

On Wed, May 17, 2017 at 8:45 PM mst72481@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> Funny you should post this, Sean. Something did happen to me! Doc says I'm
> fine but I lost a few days in there. Anyhow, I just sent Chris his radio
> this afternoon and the tracking number is in his email.
>
> I don't know anyone in this group very well but thanks for checking on me
> :)
>
> Michael N6MST
>
>
>

17929. Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-19 14:03:19 UTC
From: simon.jack68@...
Topic: 17843 Message: 17929

Test message. Have posted a couple responses recently from my phone and they haven't appeared.

17930. Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-19 14:13:58 UTC
From: simon.jack68@...
Topic: 17843 Message: 17930

So some further work done.

listened for birdies from 7.0 to 7.3 using a dummy load and battery power.

60 birdies (single tone) half were strong, another 20 or so medium and the rest weak. Two noise/hash sounds. All but three birdies were narrow in that they only appeared on the one 50hz tuning step.

Listened again with the antenna connected and nearly all the strong signals could be heard. Local noise conditions were S4 noise into 2.4khz ssb filter at the time.

Will have to try the lower output on the dds.

Have some encoder clicks at a couple of spots across the band. No issue really.

Regards

Simon VK3ELH

17931. QRP Night - a YouTube video

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-20 01:03:15 UTC
From: mst72481@...
Topic: 17931 Message: 17931

Kevin Loughin KB9RLW is proposing a "QRP Night" the night before Field Day. His local club always does it, he wants others to come put and play!

https://www.youtube.com/watch?v=mxbeu4oLKu8 https://www.youtube.com/watch?v=mxbeu4oLKu8

73
Michael N6MST

17932. Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-20 11:07:40 UTC
From: simon.jack68@...
Topic: 17843 Message: 17932

Changed the drive to Clk0 to 6ma and performed the same tune through. On the dummy load, 29 birdies, 3 strong. So seems to make a difference. Didn't seem to make any difference on sensitivity. Not an objective test performed but could pull signals at the noise at similar levels to my normal rig (which was same with 8ma (default) drive level).

Checked calibration again after this and noticed that there was a different combination of IF and CT3 at a slightly lower IF that produced a similarly large peak but killed the sensitivity. Went back to the other one.

Regards

Simon

17933. Re: [AT_Sprint] Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-20 18:29:44 UTC
From: Steve Saslow
Topic: 17843 Message: 17933

I do want to follow this, but I do not know, what is Clko? And it does look like this change helped reduce the birdies some, but "killed" the sensitivity...so I'lll try to avoid that!

My SP is a 40m unit...what is yours, Simon?

I have an unexpected chance to build another SP! Am considering 30m, especially if can get the RX band limits extended to include some shortwave BC just below 10 mHz WWV, especially the latter (calibration, time and propagation conditions...). Wondering what the birdies situation may be there, and on 20m...

tnx Simon!

Steve k7ew

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of simon.jack68@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Saturday, May 20, 2017 4:07 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Re: Soda Pop hears nothing :(

Changed the drive to Clk0 to 6ma and performed the same tune through. On the dummy load, 29 birdies, 3 strong. So seems to make a difference. Didn't seem to make any difference on sensitivity. Not an objective test performed but could pull signals at the noise at similar levels to my normal rig (which was same with 8ma (default) drive level).

Checked calibration again after this and noticed that there was a different combination of IF and CT3 at a slightly lower IF that produced a similarly large peak but killed the sensitivity. Went back to the other one.

Regards

Simon

17934. RE: [AT_Sprint] Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-20 20:49:11 UTC
From: Steven Weber
Topic: 17843 Message: 17934

The load on the clock is very light – 100K, so it doesn’t need much drive. Going to the lowest output current no doubt reduces the switching current inside the chip.

In cal mode, your injecting a very strong signal (which is why I recommend removing R29 to reduce that some). The second peak you found is the opposite sideband, which is why the sensitivity was killed. With the reduced drive, it’s a little more obvious where things peak.

Steve KD1JV

Changed the drive to Clk0 to 6ma and performed the same tune through. On the dummy load, 29 birdies, 3 strong. So seems to make a difference. Didn't seem to make any difference on sensitivity. Not an objective test performed but could pull signals at the noise at similar levels to my normal rig (which was same with 8ma (default) drive level).

Checked calibration again after this and noticed that there was a different combination of IF and CT3 at a slightly lower IF that produced a similarly large peak but killed the sensitivity. Went back to the other one.

Regards
Simon

17935. Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-21 01:35:35 UTC
From: simon.jack68@...
Topic: 17843 Message: 17935

Steve K7EW,

There are three outputs on the Si5351 chip. Clk0 (I think this is short for "Clock number 0") is the output that is fed into the first mixer. Clk1 is for transmit and Clk2 is not used.

I changed the drive to 6ma on Clk0 by adding the following line of code in the setup routine. It was otherwise 8ma.

si5351.drive_strength(SI5351_CLK0,SI5351_DRIVE_6MA);

I put this in after the si5351.init() line.

The sensitivity was not impacted by changing the drive level. It was my fiddling with the calibration that did that.
I must have calibrated to the opposite sideband (based on Steve KD1JV's explanation above) and that is what killed the sensitivity. Once I went back to the correct sideband the sensitivity was fine again.

Might try a lower drive level again and see what difference it makes. I think some have found that the sensitivity is fine without R29, not sure what amount of reduction this might represent in the drive to the first mixer. I note the comment by Shirley that a hardware solution would be better given the si5351's specs for jitter only apply at the 8ma drive level.

Might be better to remove R29? or replace with a different value?

Regards

Simon VK3ELH

17936. Re: [AT_Sprint] Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-21 02:25:24 UTC
From: Steve Saslow
Topic: 17843 Message: 17936

golly! thank you for the clarifications and comments, Simon! As I have no coding background or experience, and no arduino skills or equipment, I'm thinking, at some point = probably best for me to send my SP to someone who can do the calibrate/tune-up...we'll see, as it seems to be perking along pretty darned well/maybe I got lucky with my initial calibration!

Probably for most of us, after fiddling around with related things on our SP rigs, removing R29 in order to calibrate properly (not get onto the wrong sideband) will definitely help...

Thanks again, Simon! 72/73, Steve k7ew

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of simon.jack68@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Saturday, May 20, 2017 6:35 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Re: Soda Pop hears nothing :(

Steve K7EW,

There are three outputs on the Si5351 chip. Clk0 (I think this is short for "Clock number 0") is the output that is fed into the first mixer. Clk1 is for transmit and Clk2 is not used.

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Might be better to remove R29? or replace with a different value?

Regards

Simon VK3ELH

17937. Re: [AT_Sprint] Re: Soda Pop hears nothing :(

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-21 02:58:59 UTC
From: John Sutter
Topic: 17843 Message: 17937

Maybe it's just good conditions right now, but I just heard the New York beacon (4U1UN) on 20m with R29 still removed and the nearby Northern California beacon (W6WX) as clear as always.

Is there a downside to running without R29?

- John

On 5/20/2017 7:25 PM, Steve Saslow k7ew@... [AT_Sprint] wrote:

?

golly! ?thank you for the clarifications and comments, Simon! ?As I have no coding background ?or experience, and?no arduino skills or equipment, I'm thinking, at some point = probably?best for me to send my SP to someone who can do the calibrate/tune-up...we'll see, as it seems to be perking along pretty darned well/maybe I got lucky with my initial?calibration!

Probably for most of us, after fiddling around with related things on our SP rigs,?removing R29 in order to calibrate properly (not get onto the wrong sideband) will definitely help...

? ? ?Thanks again, Simon! ? 72/73, Steve k7ew

From: AT_Sprint@yahoogroups.com on behalf of simon.jack68@... [AT_Sprint]
Sent: Saturday, May 20, 2017 6:35 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Re: Soda Pop hears nothing :(
?

?

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Might be better?to remove R29? or replace with a different value?

Regards

Simon VK3ELH

17938. New ATS4 Owner needs Parts

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-22 15:16:42 UTC
From: stever1k@...
Topic: 17938 Message: 17938

I just picked up a nice ATS-4 at Dayton and it needs a new 50K volume control. The one on the unit is in bad shape. Does anyone know where to get one of these that will match the pads on the board? I don't think the one in the radio is repairable. It works if you hold it just right. the shaft is wobbly.

If some one knows where to get one I would appreciate it. I have checked with Digikey and Mouser with out any luck already.

Steve NU0P

17939. Re: [AT_Sprint] New ATS4 Owner needs Parts

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-22 16:34:07 UTC
From: Steve Saslow
Topic: 17938 Message: 17939

I have had excellent luck and help at Digikey (and this is not a criticism of Mouser, either, as they do provide this kind of great service): I got connected with a tech-support staffer. I sent a photo of the piece as requested, and then we discussed possible solutions...

Also, LnR Precision, and Steve W. KD1JV may have very useful suggestions... so might Dale, the very helpful repair and mod'-man in WY WC7S!

GL! -Steve k7ew

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of stever1k@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Monday, May 22, 2017 8:16 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] New ATS4 Owner needs Parts

I just picked up a nice ATS-4 at Dayton and it needs a new 50K volume control. The one on the unit is in bad shape. Does anyone know where to get one of these that will match the pads on the board? I don't think the one in the radio is repairable. It works if you hold it just right. the shaft is wobbly.

If some one knows where to get one I would appreciate it. I have checked with Digikey and Mouser with out any luck already.

Steve NU0P

17940. Re: [AT_Sprint] New ATS4 Owner needs Parts

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-22 17:29:05 UTC
From: stever1k@...
Topic: 17938 Message: 17940

Steve

Thanks so much for your kind suggestions. Maybe I will hear from the others that you mentioned. The radio works on receive just fine it seems, just that the pot is really bad and I knew it when I bought from the gentlemen.

Steve

17941. RE: [AT_Sprint] New ATS4 Owner needs Parts

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-22 17:34:30 UTC
From: Steven Weber
Topic: 17938 Message: 17941
Attachments: 1 described; binary payloads are missing from this source WARC

Mouser does have a 50K version, (311-1204F-50K) but it’s back ordered until 8/15/17. The 10K will work okay.
KD1JV

I just picked up a nice ATS-4 at Dayton and it needs a new 50K volume control. The one on the unit is in bad shape. Does anyone know where to get one of these that will match the pads on the board? I don't think the one in the radio is repairable. It works if you hold it just right. the shaft is wobbly.

If some one knows where to get one I would appreciate it. I have checked with Digikey and Mouser with out any luck already.

Steve NU0P

17942. RE: [AT_Sprint] New ATS4 Owner needs Parts

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-22 17:29:28 UTC
From: Steven Weber
Topic: 17938 Message: 17942
Attachments: 1 described; binary payloads are missing from this source WARC

Mouser 311-1204F-10K will work. They used to have a bigger selection of these, but looks like their down to jus this one now.

I just picked up a nice ATS-4 at Dayton and it needs a new 50K volume control. The one on the unit is in bad shape. Does anyone know where to get one of these that will match the pads on the board? I don't think the one in the radio is repairable. It works if you hold it just right. the shaft is wobbly.

If some one knows where to get one I would appreciate it. I have checked with Digikey and Mouser with out any luck already.

Steve NU0P

17943. Re: [AT_Sprint] New ATS4 Owner needs Parts

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-22 20:04:01 UTC
From: Dale Putnam
Topic: 17938 Message: 17943

Mouser Part #:
688-RK08H113003Q
Manufacturer Part #:
RK08H113003Q
Manufacturer:
ALPS<http://www.mouser.com/ALPS-Electric/>
It might be that this one would work.. in the AT4...

I looked in five of the parts houses.. this is the best one I could find.. so far.

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Steve Saslow k7ew@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Monday, May 22, 2017 10:34 AM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] New ATS4 Owner needs Parts

I have had excellent luck and help at Digikey (and this is not a criticism of Mouser, either, as they do provide this kind of great service): I got connected with a tech-support staffer. I sent a photo of the piece as requested, and then we discussed possible solutions...

Also, LnR Precision, and Steve W. KD1JV may have very useful suggestions... so might Dale, the very helpful repair and mod'-man in WY WC7S!

GL! -Steve k7ew

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of stever1k@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Monday, May 22, 2017 8:16 AM
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Subject: [AT_Sprint] New ATS4 Owner needs Parts

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If some one knows where to get one I would appreciate it. I have checked with Digikey and Mouser with out any luck already.

Steve NU0P

17944. 40m Soda Pop finally cased up and finished

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-24 16:38:15 UTC
From: infotechcomms@...
Topic: 17944 Message: 17944

Hi,
I finally finished my 40m Soda Pop, complete with a smart blue die-cast case and bespoke front panel.

You can take a look at;
http://g0kya.blogspot.co.uk/2017/05/soda-pop-40m-cw-qrp-radio-now-finished.html
http://g0kya.blogspot.co.uk/2017/05/soda-pop-40m-cw-qrp-radio-now-finished.html

I'm pretty happy with the fit and finish, although as a perfectionist there is always room for improvement!
I'm happy to share any details of the build and how I did it.

Steve G0KYA

17945. Re: [AT_Sprint] 40m Soda Pop finally cased up and finished

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-24 17:18:47 UTC
From: Steven Weber
Topic: 17944 Message: 17945

Nice job. It's always fun to see what you guys come up with for enclosures.

Steve KD1JV
Hi,

I finally finished my 40m Soda Pop, complete with a smart blue die-cast case and bespoke front panel.

You can take a look at;

http://g0kya.blogspot.co.uk/2017/05/soda-pop-40m-cw-qrp-radio-now-finished.html

I'm pretty happy with the fit and finish, although as a perfectionist there is always room for improvement!

I'm happy to share any details of the build and how I did it.

Steve G0KYA

17946. Re: [AT_Sprint] 40m Soda Pop finally cased up and finished

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-24 18:03:20 UTC
From: Steve Saslow
Topic: 17944 Message: 17946

I am very impressed by what you have done, Steve g0kya! I may be able to share my case attempt quite soon, also for an SP 40. Yes it has been quite a learning experience for me, too!

* for some physical/mechanical reasons, I switched the antenna connector to a flanged, screw-mounting RCA phono socket.

* I did not find some of the measurements on pg 9 to match my SP unit. It could be me, getting confused by the mixture of rational fractions, inches + decimal fractions, and a few missing dimensions (as for the on-off switch opening). I have only simple hand tools, and did not at all mind filing things to fit properly.

*I put a high priority on being able to access both sides of the rig, and, if needed, to remove it completely from the case. To fit the board in and out, by careful tilting, it appeared necessary to leave a gap of almost 1/8" between the board and the front (controls and display end). Once the rig was secured, I fitted a thin wood spacer into that gap, easy to remove if needing to extract the entire board, but adding a lot of strength to my construction.

*For top and bottom, I used 3/32" clear plastic (polycarbonate, aka lexan I believe). No cut-out necessary for the display! It's fun for me and others to look at the populations on either side! -and check for dust and other unwanted things on the board.

* my case is not air-tight, but it is close-fitting.

from Steve k7ew

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of infotechcomms@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Wednesday, May 24, 2017 9:38 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] 40m Soda Pop finally cased up and finished

Hi,

I finally finished my 40m Soda Pop, complete with a smart blue die-cast case and bespoke front panel.

You can take a look at;

http://g0kya.blogspot.co.uk/2017/05/soda-pop-40m-cw-qrp-radio-now-finished.html

[https://3.bp.blogspot.com/-d9ywUBaDZrQ/WSW1aZuGkuI/AAAAAAAAGbE/7CyfLCevpKA9KDFnMO2han09t5T3BgZmACLcB/w1200-h630-p-k-no-nu/Soda_Pop_finished.jpg]<http://g0kya.blogspot.co.uk/2017/05/soda-pop-40m-cw-qrp-radio-now-finished.html>

Soda Pop 40m CW QRP radio now finished<http://g0kya.blogspot.co.uk/2017/05/soda-pop-40m-cw-qrp-radio-now-finished.html>
g0kya.blogspot.co.uk
The finished 40m Soda Pop QRP radio (click to enlarge) I finally finished the 40m 5W Soda Pop CW radio by Steve Weber KD1JV. Buildin...

I'm pretty happy with the fit and finish, although as a perfectionist there is always room for improvement!

I'm happy to share any details of the build and how I did it.

Steve G0KYA

17947. RE: [AT_Sprint] 40m Soda Pop finally cased up and finished

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-24 19:06:55 UTC
From: Mike Olbrisch
Topic: 17944 Message: 17947
Attachments: 1 described; binary payloads are missing from this source WARC

Hey Steve - K7EW.....

Some few years ago I picked up a used ATS-3B, with the specific idea of using it to compete in the Spartan Sprints. It was far lighter than the nearly 3 pounds of FT-817 I had been competing with, and even less than the 7 ounce ATS-4B I was toying with. Thanks to a very well known list member for turning me on to this radio!
One of the rules of the sprint is that the radio must me in some sort of protective case. While the Altoids tin was plenty light, I later began looking for better. For a while, my solution was a soap dish. You know, the kind with the flip-up lid. Working carefully, I was able to drill holes in the lid, and I could use the controls and see the display. When not contesting, the accessories could store in the bottom of the rig. And for a bit, it was the lightest radio in the contest.
This was the soap dish. It comes in many colors. I used green first, and cut a hole to see the display too. But I wasn't happy, and I got a clear one so I could see the display without the hole. Then I discovered the hole lowered the weight, so I remade the hole, and put several more holes in the bottom.
https://smile.amazon.com/American-Comb-Soap-Assorted-Colors/dp/B0181LKVEE/

This was how I had it done, hope the photo comes through. I even used small nylon screws instead of the steel screws.

ATS-3B_small.jpg

But then someone else went to work on whatever radio they had, and got it below mine. Well, we couldn't allow that, could we? So I went to a friend who is perhaps the top machinist/welder I ever met. I told him what I was after, and we brainstormed on it some. With his help, and the help of a few others, I was able to meet the rules and still shave off (literally) a bunch more weight. And I currently have the record at like 206 QSOs per pound. Working shift and many long nights for the power company, I cannot compete every month. But when I do enter, I usually place well.
So next time you need something easy to work with and worthy of protecting your radio, consider the lowly plastic soap dish.

Vy73 - Mike - KD5KC.
El Paso, Texas - DM61rt.
SOTA W5T-Texas Association Manager.
NA-SOTA info is at: http://na-sota.org/

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Wednesday, May 24, 2017 12:03
To: AT_Sprint@yahoogroups.com

Subject: Re: [AT_Sprint] 40m Soda Pop finally cased up and finished

I am very impressed by what you have done, Steve g0kya! I may be able to share my case attempt quite soon, also for an SP 40. Yes it has been quite a learning experience for me, too!
* for some physical/mechanical reasons, I switched the antenna connector to a flanged, screw-mounting RCA phono socket.
* I did not find some of the measurements on pg 9 to match my SP unit. It could be me, getting confused by the mixture of rational fractions, inches + decimal fractions, and a few missing dimensions (as for the on-off switch opening). I have only simple hand tools, and did not at all mind filing things to fit properly.
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from Steve k7ew

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Subject: [AT_Sprint] 40m Soda Pop finally cased up and finished

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<http://g0kya.blogspot.co.uk/2017/05/soda-pop-40m-cw-qrp-radio-now-finished.html> Soda Pop 40m CW QRP radio now finished
g0kya.blogspot.co.uk
The finished 40m Soda Pop QRP radio (click to enlarge) I finally finished the 40m 5W Soda Pop CW radio by Steve Weber KD1JV. Buildin...

I'm pretty happy with the fit and finish, although as a perfectionist there is always room for improvement!
I'm happy to share any details of the build and how I did it.

Steve G0KYA

17948. SP #25 "Heads Up"

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-27 15:39:34 UTC
From: colinweaving@...
Topic: 17948 Message: 17948

My SP is up and running in the UK, following its DX excursion to VK land. So relieved when it finally arrived.

My SP is a little deaf, albeit quite usable.

i think it could be improved if I better understood the Calibration procedure , as follows.

Manual page 8 (halfway down the page). " Click the Keyer switch to advance to BFO adjust mode. The display will now show IF frequency " .

My display reads 914.8. Can/should this be adjusted ? I expected to see 600-700.

In addition my SP reads about 370 cycles low compared to my K3 - suspect related to above.

My guess is that the IF is only marginally in the audio bandpass.

Tx about 2 watts with 10 V. I do not think there are any issues other than fine tuning the Calibration.

Many Thanks

17949. Put my SODA POP in an case last night

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-27 20:47:53 UTC
From: John Sutter
Topic: 17949 Message: 17949

I put my SODA POP (not sure the SN) in a Hammond purple 1590XX case last
night.
http://www.sutters.com/AmateurRadio/SODA_POP/Enclosure/Front_View.jpg
http://www.sutters.com/AmateurRadio/SODA_POP/Enclosure/Rear_View.jpg

Not the best cutting work, but it all works.
I picked purple because I figured the kids would like it better.
We'll take it camping this weekend.

I took some power measurements last night at 12.0 V.
Rx Display Off: 52.5 mA -> 0.63 W
Rx Display On: 55.0 mA -> 0.66 W
Tx Display Off: 624 mA -> 7.5 W
Tx RF power 36.5 dBm - 4.5W at 14.060 MHz

Next:
Battery Pack
It looks like there's enough space to put a LiPo pack in there, so
that will
be the next project. I'll have that supply go through it's own
diode for
isolation.
Labels
Yeah, someday... I need to learn how to make decals
Bezel
I'd be nice to have a bezel to hide my filing
Power switch Cap & better knobs

Someday
Figure out how to get rid of the his
Optimize Q16. My radio seems to work fine without R29 installed at
all. The audio
seems better too. I'll try inserting a 10K pot as a voltage
divider between Q16
and C43.

17950. Re: Put my SODA POP in an case last night

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-27 21:09:48 UTC
From: ohwenzelph@...
Topic: 17949 Message: 17950

John, you only see the imperfections while everyone else sees only perfection. What is this optimize Q16? I must have misse something. And I have never understood what is going on with R 29.. Jerry AA1OF

17951. Re: [AT_Sprint] Re: Put my SODA POP in an case last night

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-27 21:46:30 UTC
From: John Sutter
Topic: 17949 Message: 17951

Thanks. It was a tougher fit than I expected, though I did have the benefit of Steve's recent experience. I also went with purple because Amazon had one ready to deliver to me Friday afternoon. I did have to grind standoffs to get the right height above board (0.3") and I had to grind the side of one by the encoder quite a bit to allow it to be normal to the PCB.

When I was testing my SODA POP for sensitivity with my company's good signal generator I noticed afterward that R29 was out of circuit. I reconnected and retested. The sensitivity was the same, but the I thought the audio was worse (more noise, howling, don't know the right terms) and there were considerably more birdies. Others have changed the drive level out of the clock generator with no/little change.

I'm a digital and analog kind of guy, but not a small signal/RF kind, yet, so I'm doing a lot of guessing.

- John
W1JDS

On 5/27/2017 2:09 PM, ohwenzelph@... [AT_Sprint] wrote:

John, you only see the imperfections while everyone else sees only perfection. What is this optimize Q16? I must have misse something. And I have never understood what is going on with R 29..

Jerry AA1OF

17952. Re: [AT_Sprint] SP #25 "Heads Up"

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-29 02:10:17 UTC
From: Steve Saslow
Topic: 17948 Message: 17952

Colin, please, what band is your SP on? Mine is on 40m, and several of my calib' readings are same as yours: 914.8 in the BFO adjust step, apparently showing IF freq... and: my SP also reads about 370 Hz low! [However, my SP is hardly deaf at all.]

imho, if one or more of our leader guru geek amazing troubleshooting experienced masters could expand the written part of this calibration section, to include what the various results (we are getting) tell us, observed results and their analysis, - couldn't that be muy helpful?

72/73, Steve k7ew

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of colinweaving@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Saturday, May 27, 2017 8:39 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] SP #25 "Heads Up"

My SP is up and running in the UK, following its DX excursion to VK land. So relieved when it finally arrived.

My SP is a little deaf, albeit quite usable.

i think it could be improved if I better understood the Calibration procedure , as follows.

Manual page 8 (halfway down the page). " Click the Keyer switch to advance to BFO adjust mode. The display will now show IF frequency " .

My display reads 914.8. Can/should this be adjusted ? I expected to see 600-700.

In addition my SP reads about 370 cycles low compared to my K3 - suspect related to above.

My guess is that the IF is only marginally in the audio bandpass.

Tx about 2 watts with 10 V. I do not think there are any issues other than fine tuning the Calibration.

Many Thanks

17953. Re: [AT_Sprint] SP #25 "Heads Up"

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-29 05:29:16 UTC
From: Jonathan
Topic: 17948 Message: 17953

I want to add my emphatic vote to Steve's call for additional explication of the calibration procedure in the manual. Adding details for builders who don't already know how to align the rig would be superfluous for some, but very helpful for others.
Thx.
Jonathan, W0XO

☐

On May 28, 2017, 9:10 PM, at 9:10 PM, "Steve Saslow k7ew@... [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:
>Colin, please, what band is your SP on? Mine is on 40m, and several of
>my calib' readings are same as yours: 914.8 in the BFO adjust step,
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> [However, my SP is hardly deaf at all.]
>
>imho, if one or more of our leader guru geek amazing troubleshooting
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>section, to include what the various results (we are getting) tell us,
>observed results and their analysis, - couldn't that be muy helpful?
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>72/73, Steve k7ew
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>Tx about 2 watts with 10 V. I do not think there are any issues other
>than fine tuning the Calibration.
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>
>Many Thanks

17954. Re: SP #25 "Heads Up"

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-30 10:23:13 UTC
From: simon.jack68@...
Topic: 17948 Message: 17954

I too spent a fair bit of time calibrating my rig to where I am happy with its sensitivity.

My IF is at 914.7 but I presume each will be slightly different. I did find a peak somewhat lower than this which I think was on the other side of the passband and the SP was deaf as a result.

I spent a fair bit of time adjusting the IF then the BFO throughout its whole range and taking note of the peak value. Then change the IF slightly and go through the BFO range again and take note of the peak again. I tested the IF both above and below the default starting value. Chose the largest peak from this set of combinations. There was overall one peak that was large that as said earlier was on the other side of the passband. When I changed it to the other peak the SP could hear again. Adjusting the CT1 and CT2 trimmers was straight forward after this.

Scope was used.

Regards

Simon VK3ELH

17955. Re: [AT_Sprint] Re: SP #25 "Heads Up"

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-31 17:11:12 UTC
From: Colin Weaving
Topic: 17948 Message: 17955

In reply to Steve , my SP is on 20M

We have just had a long holiday weekend, and the calendar is somewhat crowded, and my attention to the SP will be limited over the next 10 days. However I have used the Reverse Beacon network to show that the SP transmission is being heard around Europe with 10.2 V Power Supply and about 2W output into 20 M endfed ant.

I will update when I have fully explored receiver alignment to improve sensitivity. Some useful comments of avoiding the "other side band" have been voiced. My understanding would be significantly improved if I better understood the 917.8 IF. Can this be modified? If so, is it beneficial.? My typical CW sweet spot is a 600/700 HZ.

Sent from my iPad

> On 30 May 2017, at 11:23, simon.jack68@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> I too spent a fair bit of time calibrating my rig to where I am happy with its sensitivity.
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> Simon VK3ELH
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17956. RE: [AT_Sprint] Re: SP #25 "Heads Up"

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-31 18:17:58 UTC
From: Steven Weber
Topic: 17948 Message: 17956
Attachments: 1 described; binary payloads are missing from this source WARC

917.8 is the truncated value of the IF frequency of 4.9152 MHz. Because of the loading of the caps in the filter, the actual center frequency of the IF is a little lower, at 4.9178 MHz.

Due to tolerances, and how well the clock is calibrated, the actual center frequency of the filter can vary a few 100 Hz. Since the filter is fairly narrow, getting the LO centered in the pass band of the crystal filter is needed to make the Tx and Rx frequencies match.

Once the LO is centered in the pass band of the IF filter, the BFO is adjusted to the peak the beat note in the pass band of the audio filter, which is centered around 600 Hz. Because 5% parts are used for resistors and 10% parts for the caps, the actual center frequency can vary some from the theoretical 600 Hz center. But the audio filter doesn’t have a high Q, so is reasonably wide. It’s there mostly to reduce hiss.

73, Steve KD1JV

In reply to Steve , my SP is on 20M

We have just had a long holiday weekend, and the calendar is somewhat crowded, and my attention to the SP will be limited over the next 10 days. However I have used the Reverse Beacon network to show that the SP transmission is being heard around Europe with 10.2 V Power Supply and about 2W output into 20 M endfed ant.

I will update when I have fully explored receiver alignment to improve sensitivity. Some useful comments of avoiding the "other side band" have been voiced. My understanding would be significantly improved if I better understood the 917.8 IF. Can this be modified? If so, is it beneficial.? My typical CW sweet spot is a 600/700 HZ.

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Scope was used.< /div>

Regards

Simon VK3ELH

17957. ATS III Mods

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-31 19:55:27 UTC
From: dl2arl@...
Topic: 17957 Message: 17957

Gentlemen,
because of the ATS III being almost two decades young, the question I have here might be obsolete. The problem is that the search function of this group does by far over-challenge my wits and I found no hint in the conversations history.

So here is my problem: in the Files-section of this group, there is a file named "ultimate ATS III filter mods" , originally written by Craig NR4E for the qrp-L Mailman. Yes, it concerns the original ATS III, not the ATS3A nor the ATS3B. The one with the big, huge IF-Transformer sticking out of the frail board like a sore thumb, but giving the NE602 mixer a decent differential, symmetrical output, the way all should be and making thr Rx of this rig so unique, I love it most out of my whole collection.
So far, so good.

Now, at the end of this very precious document, the resolution fades away and the values of the parts used for the mod of the audio-output filter are somehow scrambled. Can somebody help me sort things the way they should be? The mod is meant to transform the original band-pass characteristic of the output stage to a lowpass one. Thanks and best 73, Razvan DL2ARL

quote from the above mentioned document:

output stage:
R5,C28 changed to 6.81k
C27 " 3.01k
R6 " .047uF
R7 " .01uF

17958. RE: [AT_Sprint] ATS III Mods

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-05-31 21:49:44 UTC
From: Steven Weber
Topic: 17957 Message: 17958
Attachments: 1 described; binary payloads are missing from this source WARC

Personally, I don’t think that mode worked very well and you should leave well enough alone.
Steve KD1JV

Gentlemen,
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C27 " 3.01k
R6 " .047uF
R7 " .01uF

17959. Re: [AT_Sprint] ATS III Mods

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-01 00:24:07 UTC
From: Michael Harnage
Topic: 17957 Message: 17959

https://web.archive.org/web/20060830153142/http://www.w1mt.qrpradio.com:80/rcvr_post_mod.jpg

Sent from Yahoo Mail on Android

On Wed, May 31, 2017 at 15:55, dl2arl@... [AT_Sprint]<AT_Sprint@yahoogroups.com> wrote:
<!--#yiv2623343224 #yiv2623343224 .yiv2623343224ygrp-photo-title{clear:both;font-size:smaller;height:15px;overflow:hidden;text-align:center;width:75px;}#yiv2623343224 div.yiv2623343224ygrp-photo{background-position:center;background-repeat:no-repeat;background-color:white;border:1px solid black;height:62px;width:62px;}#yiv2623343224 div.yiv2623343224photo-title a, #yiv2623343224 div.yiv2623343224photo-title a:active, #yiv2623343224 div.yiv2623343224photo-title a:hover, #yiv2623343224 div.yiv2623343224photo-title a:visited {text-decoration:none;}#yiv2623343224 div.yiv2623343224attach-table div.yiv2623343224attach-row {clear:both;}#yiv2623343224 div.yiv2623343224attach-table div.yiv2623343224attach-row div {float:left;}#yiv2623343224 p {clear:both;padding:15px 0 3px 0;overflow:hidden;}#yiv2623343224 div.yiv2623343224ygrp-file {width:30px;}#yiv2623343224 div.yiv2623343224attach-table div.yiv2623343224attach-row div div a {text-decoration:none;}#yiv2623343224 div.yiv2623343224attach-table div.yiv2623343224attach-row div div span {font-weight:normal;}#yiv2623343224 div.yiv2623343224ygrp-file-title {font-weight:bold;}#yiv2623343224 --> <!--#yiv2623343224 #yiv2623343224ygrp-mkp {border:1px solid #d8d8d8;font-family:Arial;margin:10px 0;padding:0 10px;}#yiv2623343224 #yiv2623343224ygrp-mkp hr {border:1px solid #d8d8d8;}#yiv2623343224 #yiv2623343224ygrp-mkp #yiv2623343224hd {color:#628c2a;font-size:85%;font-weight:700;line-height:122%;margin:10px 0;}#yiv2623343224 #yiv2623343224ygrp-mkp #yiv2623343224ads {margin-bottom:10px;}#yiv2623343224 #yiv2623343224ygrp-mkp .yiv2623343224ad {padding:0 0;}#yiv2623343224 #yiv2623343224ygrp-mkp .yiv2623343224ad p {margin:0;}#yiv2623343224 #yiv2623343224ygrp-mkp .yiv2623343224ad a {color:#0000ff;text-decoration:none;}-->

Gentlemen,
because of the ATS III being almost two decades young, the question I have here might be obsolete. The problem is that the search function of this group does by far over-challenge my wits and I found no hint in the conversations history.

So here is my problem: in the Files-section of this group, there is a file named "ultimate ATS III filter mods" , originally written by CraigNR4E for the qrp-L Mailman. Yes, it concerns the original ATS III, not the ATS3A nor the ATS3B. The one with the big, huge IF-Transformer sticking out of the frail board like a sore thumb, but giving the NE602 mixer a decent differential, symmetrical output, the way all should be and making thr Rx of this rig so unique, I love it most out of my whole collection.
So far, so good.

Now, at the end of this very precious document, the resolution fades away and the values of the parts used for the mod of the audio-output filter are somehow scrambled. Can somebody help me sort things the way they should be? The mod is meant to transform the original band-pass characteristic of the output stage to a lowpass one. Thanks and best 73, Razvan

DL2ARL

quote from the above mentioned document:

#yiv2623343224 p {margin-bottom:0.1in;direction:ltr;color:rgb(0, 0, 0);line-height:120%;}#yiv2623343224 p.yiv2623343224western {font-family:"Times New Roman", serif;font-size:12pt;}#yiv2623343224 p.yiv2623343224cjk {font-family:"Times New Roman", serif;font-size:12pt;}#yiv2623343224 p.yiv2623343224ctl {font-family:"Times New Roman", serif;font-size:12pt;}#yiv2623343224 a:link {color:rgb(0, 0, 255);}
outputstage:

R5,C28changed to 6.81k

C27 " 3.01k

R6 " .047uF

R7 " .01uF

17960. SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-01 02:06:40 UTC
From: John Sutter
Topic: 17960 Message: 17960
Attachments: 1 described; binary payloads are missing from this source WARC

I put a 5K multi-turn pot across R29 and moved C43 from R29 to the wiper.
I adjusted the pot for various peak to peak voltages as measured by
my scope and then captured the W6WX beacon on 14.100 MHz with Audacity.
Everything is uncalibrated, but consistent. I measured the average sound level
after AGC settling on the first long dash and the noise after all discernible signal.

I've included a table & chart at the end of this message. If it doesn't come through
I'll put it on the web and send a link.

What the data & chart tell me is that the AGC is kicking in pretty early and the noise rises with
drive amplitude.

Note that I'm just guessing at how I should measure this and the implications of what I read.
Suggestions/corrections are welcome as always.

I left my drive at 0.8V around 3:30 this AM, though, after plotting this I might set it to 0.4 or 0.6V.
I wish I had measured the signal at C43 before I added the pot.

For reference, I stood C43 up on end on the pad connected to the gate of Q13 and connected the wiper
to the other end. One end of the pot is connected to the 12V side of R29 and the other end of the
pot to Q19 source (the other end of R29..). I ran my tests between midnight and 3:30 AM this morning
connected to my poorly placed 20m dipole 8' AGL running E/W. I did manage to break C43 when I was
finished up, so it's off to the parts store tomorrow morning unless I can find a 100pF cap in my collection.

(I did fudge the value for 6.6V to account for a change in input level to avoid clipping)

Vpk2pk

Avg Signal

Avg Noise

SNR

0.05

-21.7

-38.6

6.9

0.10

-19.5

-25.1

5.6

0.20

-12.9

-25.3

12.4

0.40

-8.5

-23.5

14.9

0.80

-8.3

-19.4

11.1

1.20

-8.1

-16.7

8.6

1.60

-8.3

-19.9

11.6

1.80

-8.2

-19.1

10.9

2.20

-8.2

-18.5

10.3

2.60

-8.2

-17.5

9.3

3.00

-8.1

-17.2

9.2

3.40

-8

-15.3

7.3

3.80

-8

-14.9

6.9

4.20

-8

-14.1

6.1

4.60

-8

-12.7

4.7

5.00

-8

-12.1

4.2

5.40

-7.9

-12

4.1

5.80

-7.9

-11.4

3.5

6.20

-7.8

-11

3.2

6.60

-7.8

-10.4

2.6

17961. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-01 04:23:28 UTC
From: David Giddy
Topic: 17960 Message: 17961
Attachments: 1 described; binary payloads are missing from this source WARC

Hi John,

Interesting but maybe not too meaningful. I suspect your signal was quite strong (did you happen to check it on another receiver with an S meter?). Both the signal and noise would likely increase with increased injection level, but where the signal is strong, it will trigger the AGC. When you measure just noise, the AGC would have dropped off and so the gain will be different essentially invalidating the SNR calculation.

A simpler test would perhaps be to find a really weak signal (are there any further away beacons you can just hear?) and just either qualitatively assess the SNR as you vary the drive level, or better get an audio spectrum analyser application and measure the SNR that way. Key point is that you need to measure both the signal and noise at the same time (same AGC impact).

73

David
VK3IL

On Thu, Jun 1, 2017 at 12:06 PM, John Sutter jds@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> I put a 5K multi-turn pot across R29 and moved C43 from R29 to the wiper.
> I adjusted the pot for various peak to peak voltages as measured by
> my scope and then captured the W6WX beacon on 14.100 MHz with Audacity.
> Everything is uncalibrated, but consistent. I measured the average sound
> level
> after AGC settling on the first long dash and the noise after all
> discernible signal.
>
> I've included a table & chart at the end of this message. If it doesn't
> come through
> I'll put it on the web and send a link.
>
> What the data & chart tell me is that the AGC is kicking in pretty early
> and the noise rises with
> drive amplitude.
>
> Note that I'm just guessing at how I should measure this and the
> implications of what I read.
> Suggestions/corrections are welcome as always.

>
> I left my drive at 0.8V around 3:30 this AM, though, after plotting this I
> might set it to 0.4 or 0.6V.
> I wish I had measured the signal at C43 before I added the pot.
>
> For reference, I stood C43 up on end on the pad connected to the gate of
> Q13 and connected the wiper
> to the other end. One end of the pot is connected to the 12V side of R29
> and the other end of the
> pot to Q19 source (the other end of R29..). I ran my tests between
> midnight and 3:30 AM this morning
> connected to my poorly placed 20m dipole 8' AGL running E/W. I did manage
> to break C43 when I was
> finished up, so it's off to the parts store tomorrow morning unless I can
> find a 100pF cap in my collection.
>
> (I did fudge the value for 6.6V to account for a change in input level to
> avoid clipping)
>
> Vpk2pk Avg Signal Avg Noise SNR
>
>
>
>
>
>
>
>
> 0.05 -21.7 -38.6 6.9
>
>
>
>
>
>
>
>
> 0.10 -19.5 -25.1 5.6
>
>
>
>
> 0.20 -12.9 -25.3 12.4
> 0.40 -8.5 -23.5 14.9
> 0.80 -8.3 -19.4 11.1
> 1.20 -8.1 -16.7 8.6
> 1.60 -8.3 -19.9 11.6
> 1.80 -8.2 -19.1 10.9
> 2.20 -8.2 -18.5 10.3
> 2.60 -8.2 -17.5 9.3
> 3.00 -8.1 -17.2 9.2
> 3.40 -8 -15.3 7.3

> 3.80 -8 -14.9 6.9
> 4.20 -8 -14.1 6.1
> 4.60 -8 -12.7 4.7
> 5.00 -8 -12.1 4.2
> 5.40 -7.9 -12 4.1
> 5.80 -7.9 -11.4 3.5
>
>
>
>
>
>
>
> 6.20 -7.8 -11 3.2
>
>
>
>
>
>
>
> 6.60 -7.8 -10.4 2.6
>
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>
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>
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>

--

73

David
VK3IL

17962. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-01 17:18:49 UTC
From: John Sutter
Topic: 17960 Message: 17962
Attachments: 1 described; binary payloads are missing from this source WARC

Unfortunately, I don't have a calibrated S-meter right now, but I inserted 40dB attenuation and can just hear the beacon on a Softrock RxTx
and convinced myself that I could hear the second long tone, so I'm guessing the original signal was around -70dB. Probably strong enough to be a problem for me in this case.

I'll replace the capacitor today and try again with 40dB of attenuation.
For the audio spectrum analyzer I've been using "Visual Analyzer".

- John

On 5/31/2017 9:23 PM, David Giddy david@... [AT_Sprint] wrote:

Hi John,

Interesting but maybe not too meaningful. I suspect your signal was quite strong (did you happen to check it on another receiver with an S meter?). Both the signal and noise would likely increase with increased injection level, but where the signal is strong, it will trigger the AGC. When you measure just noise, the AGC would have dropped off and so the gain will be different essentially invalidating the SNR calculation.

A simpler test would perhaps be to find a really weak signal (are there any further away beacons you can just hear?) and just either qualitatively assess the SNR as you vary the drive level, or better get an audio spectrum analyser application and measure the SNR that way. Key point is that you need to measure both the signal and noise at the same time (same AGC impact).

73

David

VK3IL

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Everything is uncalibrated, but consistent. I measured the average sound level after AGC settling on the first long dash and the noise after all discernible signal.

I've included a table & chart at the end of this message. If it doesn't come through I'll put it on the web and send a link.

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finished up, so it's off to the parts store tomorrow morning unless I can find a 100pF cap in my collection.

(I did fudge the value for 6.6V to account for a change in input level to avoid clipping)

Vpk2pk

Avg Signal

Avg Noise

SNR

0.05

-21.7

-38.6

6.9

0.10

-19.5

-25.1

5.6

0.20

-12.9

-25.3

12.4

0.40

-8.5

-23.5

14.9

0.80

-8.3

-19.4

11.1

1.20

-8.1

-16.7

8.6

1.60

-8.3

-19.9

11.6

1.80

-8.2

-19.1

10.9

2.20

-8.2

-18.5

10.3

2.60

-8.2

-17.5

9.3

3.00

-8.1

-17.2

9.2

3.40

-8

-15.3

7.3

3.80

-8

-14.9

6.9

4.20

-8

-14.1

6.1

4.60

-8

-12.7

4.7

5.00

-8

-12.1

4.2

5.40

-7.9

-12

4.1

5.80

-7.9

-11.4

3.5

6.20

-7.8

-11

3.2

6.60

-7.8

-10.4

2.6

--

73

David

VK3IL

17963. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-01 19:22:35 UTC
From: Steven Weber
Topic: 17960 Message: 17963

Q16 is a level shifter which changes the 3.3V signal from the clock chip to the full DC supply voltage. 3.3V wasn't enough swing to get good conversion gain when the DC supply is up at 13.8V, but could be enough at lower supply voltages.

If you want to reduce the drive, adding a resistor to ground from R29 would be the best way to do it. Or disconnect R29 from the DC supply bus and reconnect it to the 5V bus, which is near-by. A 5V swing is probaby enough to get good conversion gain and would be supply voltage independent. I'll have to try that when I get a chance.

Steve KD1JV

17964. RE: [AT_Sprint] ATS III Mods

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-01 20:37:32 UTC
From: dl2arl@...
Topic: 17957 Message: 17964

Thanks for the answers, dear friends!
Tell me Steve:

"Personally, I don’t think that mode worked very well and you should leave well enough alone."

do you mean only the mod of the audio chain (changing the BandPass characteristik to a LowPass one) or the mod with the matching of the IF impedance too? Matching the impedance of the IF chain around the crystal filter does not sound so bad to me, does it? And narrowing the skirt of the cristal filter by changing the capacitors from 150 to 100pF neither.

Thanks, Razvan DL2ARL

17965. My ATS4 has a new volume control...But!!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-01 22:02:27 UTC
From: stever1k@...
Topic: 17965 Message: 17965

I don't know if this is common or not but my ATS4 stays on all the time. I can not turn it off with the little push button on the side....That button works as it should verified by my DMM but it makes no difference to the unit. Anyone seen this before and if so how is it fixed??

Steve NU0P

17966. Re: My ATS4 has a new volume control...But!!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-01 23:53:27 UTC
From: stever1k@...
Topic: 17965 Message: 17966

Shane on me...If I had taken the time to read the manual I would not have a red face!! All is well with my radio ....Just a operator error.

Steve....

17967. FS: MTN Topper 3 Band

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-02 03:54:24 UTC
From: Steve Parks
Topic: 17967 Message: 17967

I recently acquired a KX2 and no longer need my LNR MTN Topper 3 band. Mine was factory assembled. I used it on backpacking trips and only used it 5-10 times. It is in excellent shape.

$210

-Steve-
KF5RY

17968. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-02 18:36:13 UTC
From: John Sutter
Topic: 17960 Message: 17968
Attachments: 1 described; binary payloads are missing from this source WARC

I inserted about 40dB attenuation and listened to the beacon for a few more hours tonight. 3V looks to
be optimal for me, though I did notice a fair number of birdies at that voltage.

I like the idea of changing to the 5V supply and probably adding a bypass cap.

I used Visual Analyzer to measure noise peak at 620 Hz and signal peak at 620 Hz for the chart below.

I'll build and calibrate a S-9 signal generator this weekend. I'm tired of waiting 3 minutes for each sample...

Thanks for the suggestions,

- John

Vpk2pk

Signal

Background

SNR

0.05

-24.47

-24.47

0.00

0.10

-24.15

-24.15

0.00

0.20

-24.09

-24.09

0.00

0.30

-22.56

-23.74

1.18

0.40

-21.35

-24.22

2.87

0.50

-19.43

-24.53

5.10

0.60

-18.60

-23.68

5.08

0.70

-16.12

-24.23

8.11

0.80

-15.31

-24.31

9.00

0.90

-15.95

-24.34

8.39

1.00

-14.70

-22.36

7.66

1.10

-13.58

-23.09

9.51

1.50

-10.65

-20.99

10.34

2.00

-10.37

-21.14

10.77

2.50

-7.79

-19.80

12.01

3.00

-5.81

-18.65

12.84

3.50

-5.28

-17.01

11.73

4.00

-4.20

-15.51

11.31

4.50

-3.28

-13.36

10.08

5.00

-3.05

-12.90

9.85

5.50

-3.24

-11.46

8.22

6.00

-2.95

-9.35

6.40

6.50

-1.98

-9.81

7.83

7.00

-3.00

-9.20

6.20

7.50

-2.92

-8.38

5.46

8.00

-3.73

-8.46

4.73

8.50

-3.19

-7.21

4.02

9.00

-4.04

-7.53

3.49

9.50

-4.70

-7.29

2.59

On 6/1/2017 12:22 PM, 'Steven Weber' steve.kd1jv@... [AT_Sprint] wrote:

□

Q16 is a level shifter which changes the 3.3V signal from the clock chip to the full DC supply voltage. 3.3V wasn't enough swing to get good conversion gain when the DC supply is up at 13.8V, but could be enough at lower supply voltages.

If you want to reduce the drive, adding a resistor to ground from R29 would be the best way to do it. Or disconnect R29 from the DC supply bus and reconnect it to the 5V bus, which is near-by. A 5V swing is probaby enough to get good conversion gain and would be supply voltage independent. I'll have to try that when I get a chance.

Steve KD1JV

17969. MTR3B protective cover

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-01 19:47:47 UTC
From: k5mgj@...
Topic: 17969 Message: 17969

I happened across this, apparently useful protective cover for the LNR version of the MTR 3B.
Caveat emptor.

https://www.thingiverse.com/thing:1712501 https://www.thingiverse.com/thing:1712501

73
Mark
K5MGJ
https://www.thingiverse.com/thing:1712501 https://www.thingiverse.com/thing:1712501

17970. RE: [AT_Sprint] MTR3B protective cover

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-05 01:32:00 UTC
From: Ken Talbott
Topic: 17969 Message: 17970

OK Mark, stop teasing. Where can we purchase one?

Ken ke4rg

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Thursday, June 1, 2017 3:48 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] MTR3B protective cover

I happened across this, apparently useful protective cover for the LNR version of the MTR 3B.

Caveat emptor.

https://www.thingiverse.com/thing:1712501

73

Mark

K5MGJ

17971. MTR5 cover photo #2

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-05 02:54:21 UTC
From: Fred Maas
Topic: 17971 Message: 17971
Attachments: 1 described; binary payloads are missing from this source WARC

This shows the folding cover open, supports log and paddle. i simply cut out a piece of aluminum and used a vise to bend it.

73, - fred KT5X aka WS0TA

17972. MTR5 protective cover photo 31

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-05 02:54:21 UTC
From: Fred Maas
Topic: 17972 Message: 17972
Attachments: 1 described; binary payloads are missing from this source WARC

The attached photo shows the hinged cover I made for the MTR5. I decided on this approach because with the clock on the screen, I wanted to be able to see it while logging. The hinged cover then supports a paddle and the log, as may be seen better in the next photo.

- fred

17973. MTR3B protector

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-05 02:54:21 UTC
From: Fred Maas
Topic: 17973 Message: 17973
Attachments: 1 described; binary payloads are missing from this source WARC

The metal case protects the radio perfectly well on all sides but one. If the vulnerable plastic switches are protected, no further encasing is needed. The snap-on hard cover will certainly work. Here is something you can make yourself for essentially no cost.

See photo. It is a piece of closed cell foam one quarter inch thick. I plucked a little out where the switches are located. It can be secured to the case with a rubber band. I had some tiny rare earth magnets, and those stick to the mounting screws, so I plucked a little foam in the corners, and glued the magnets in, so the foam sticks to the case on its own. This has served in this way on hundreds of SOTA peaks, first on the ATS4, then the MTR2 and now the MTR3.

The taped on straw sheaths a tethered space pen for logging. Logging is done with a cut to size piece of 3x5 card clipped to the back of the radio.

The dental floss case houses an 81:1 impedance transformer, the EFHW wire plugs in directly to that, no feedline.

LiPO battery attaches with velcro. Headfones self rewind. Nothing to plug-in in hte field, nothing to forget on the ground. Entire thing with battery is eight ounces. It is carried in a small water-proof sea-to-summit bag in case of rain.

That's my ultra-lyte system!

72, Fred KT5X aka WS0TA

17974. RE: [AT_Sprint] MTR3B protective cover

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-05 13:26:23 UTC
From: k5mgj@...
Topic: 17969 Message: 17974

You'll have to send an order in, to your choice of vendor, to have it 3D printed and then sent to you.
Register an account on the site linked and work through the ordering process. I ordered one through a printing house in CA, total about $10. Vendor and color choice will vary the price.

73
Mark
K5MGJ

17975. Re: MTR3B protector

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-05 11:52:41 UTC
From: kjell.eriksen
Topic: 17973 Message: 17975
Attachments: 5 described; binary payloads are missing from this source WARC

I made a small proteccion case.Like the thrusty x-us SCR-694 radio.Also modifyed the radio to have 5.5mm dc plugg and a normal bnc antenna Jack. 73 de LA1KHA

17976. Re: [AT_Sprint] MTR3B protective cover

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-05 15:16:23 UTC
From: Joe Street
Topic: 17969 Message: 17976

I downloaded the file and sent it to the local university's print shop.
Still waiting for the quote.

On Mon, Jun 5, 2017 at 9:26 AM, k5mgj@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> You'll have to send an order in, to your choice of vendor, to have it 3D
> printed and then sent to you.
> Register an account on the site linked and work through the ordering
> process. I ordered one through a printing house in CA, total about $10.
> Vendor and color choice will vary the price.
>
> 73
> Mark
> K5MGJ
>
>
>

17977. MTR-5B Battery and 40 Character Display

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-05 18:18:13 UTC
From: wayne.wheeler@...
Topic: 17977 Message: 17977

LNR Precision now has the following warning on their website for the MTR-5B

(UPDATE: Battery installation is no longer recommended due to excessive battery damage of coin battery. This causes erratic operation of the processor.)

Have you guys had an issue here? Know what they are talking about? Is it just battery leak if you don't change the battery regularly?

It would be a shame to loose the clock function.

Also, LNR now seems to be shipping with a 40 Character display with larger type (always good). Anyone know a part number for this display, and if it requires any code mods?

Thanks!

Wayne
W6AHH

17978. ATS-3 audio?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-05 20:15:17 UTC
From: dalong313@...
Topic: 17978 Message: 17978

Friend is testing an ATS-3 he plans to sell - says it transmits OK but "hearing" is weak. I think I read that it needs volume control headphones or an external speaker - so would the weak audio be normal?

17979. Re: [AT_Sprint] ATS-3 audio?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-05 20:51:14 UTC
From: Michael Harnage
Topic: 17978 Message: 17979

Might just need calibration.

On Monday, June 5, 2017 4:24 PM, "dalong313@yahoo.com [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:

Friend is testing an ATS-3 he plans to sell - says it transmits OK but "hearing" is weak. I think I read that it needs volume control headphones or an external speaker - so would the weak audio be normal?

17980. Re: [AT_Sprint] ATS-3 audio?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-06 02:11:31 UTC
From: Dale Putnam
Topic: 17978 Message: 17980

and THAT is very likely!

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@...m> on behalf of Michael Harnage w1mt@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Monday, June 5, 2017 2:51 PM
To: AT_Sprint@...m
Subject: Re: [AT_Sprint] ATS-3 audio?

Might just need calibration.

On Monday, June 5, 2017 4:24 PM, "dalong313@... [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:

Friend is testing an ATS-3 he plans to sell - says it transmits OK but "hearing" is weak. I think I read that it needs volume control headphones or an external speaker - so would the weak audio be normal?

17981. RE: [AT_Sprint] MTR-5B Battery and 40 Character Display

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-06 15:54:05 UTC
From: Steven Weber
Topic: 17977 Message: 17981
Attachments: 1 described; binary payloads are missing from this source WARC

The problem is when the battery gets weak, the processor can glitch when powering back up. This is due to the high internal resistance of the battery which sags under load and it drops below the minimum operating voltage of the processor for a millisecond or two. This occurs when the rig is turned on or off. There is no actual damage done, the processor simply locks up.

This is less of a problem with the first batches of the 5B which used the 40 character graphics display and to some extent depends on how often the rig is turned on and off, since that is when a 2-3 ma current surge occurs.

The solution (which I explained in an earlier post a few weeks ago) is to replace the coin cell with two “AAA” batteries. With careful placement, a 2X AAA battery holder will fit in the 5B case, secure it with some double sided tape inside the bottom piece of the case.

The other solution is to only enable the battery when you need it. Simply slipping a little piece of paper under the chip holding the battery in the holder will act as an on-off switch.

It is not possible to change the graphics display to the 2 X16 ascii display. The firmware for controlling the display is completely different, along with the pin out and wiring. The only thing which is the same between the two displays is the physical size.

73, Steve KD1JV

LNR Precision now has the following warning on their website for the MTR-5B

(UPDATE: Battery installation is no longer recommended due to excessive battery damage of coin battery. This causes erratic operation of the processor.)

Have you guys had an issue here? Know what they are talking about? Is it just battery leak if you don't change the battery regularly?

It would be a shame to loose the clock function.

Also, LNR now seems to be shipping with a 40 Character display with larger type (always good). Anyone know a part number for this display, and if it requires any code mods?

Thanks!

Wayne
W6AHH

17982. Re: [AT_Sprint] MTR-5B Battery and 40 Character Display [1 Attachment]

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-06 16:29:49 UTC
From: Joe W2KJ
Topic: 17977 Message: 17982

Howdy Gang:

Does this battery quirk pertain to the MTR5b only or does it apply equally to the MTR4b?

Many thanks for info.

73, Joe W2KJ
MTR4b

> On Jun 6, 2017, at 11:54 AM, Steven Weber steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> [Attachment(s) from Steven Weber included below]
>
> The problem is when the battery gets weak, the processor can glitch when powering back up. This is due to the high internal resistance of the battery which sags under load and it drops below the minimum operating voltage of the processor for a millisecond or two. This occurs when the rig is turned on or off. There is no actual damage done, the processor simply locks up.
>
>
>
> This is less of a problem with the first batches of the 5B which used the 40 character graphics display and to some extent depends on how often the rig is turned on and off, since that is when a 2-3 ma current surge occurs.
>
>
>
> The solution (which I explained in an earlier post a few weeks ago) is to replace the coin cell with two “AAA” batteries. With careful placement, a 2X AAA battery holder will fit in the 5B case, secure it with some double sided tape inside the bottom piece of the case.
>
>
>
> The other solution is to only enable the battery when you need it. Simply slipping a little piece of paper under the chip holding the battery in the holder will act as an on-off switch.
>
>
>
> It is not possible to change the graphics display to the 2 X16 ascii display. The firmware for controlling the display is completely different, along with the pin out and wiring. The only thing which is the same between the two displays is the physical size.
>

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>
> 73, Steve KD1JV
>
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>
> LNR Precision now has the following warning on their website for the MTR-5B
>
>
>
> (UPDATE: Battery installation is no longer recommended due to excessive battery damage of coin battery. This causes erratic operation of the processor.)
>
>
>
> Have you guys had an issue here? Know what they are talking about? Is it just battery leak if you don't change the battery regularly?
>
>
>
> It would be a shame to loose the clock function.
>
>
>
> Also, LNR now seems to be shipping with a 40 Character display with larger type (always good). Anyone know a part number for this display, and if it requires any code mods?
>
>
>
> Thanks!
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>
> Wayne
>
> W6AHH
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17983. RE: [AT_Sprint] MTR-5B Battery and 40 Character Display

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-06 20:56:39 UTC
From: Steven Weber
Topic: 17977 Message: 17983

Yes, even more so.

Steve KD1JV

Does this battery quirk pertain to the MTR5b only or does it apply equally to the MTR4b?

Many thanks for info.

73, Joe W2KJ
MTR4b

> The solution (which I explained in an earlier post a few weeks ago) is to replace the coin cell with two “AAA” batteries. With careful placement, a 2X AAA battery holder will fit in the 5B case, secure it with some double sided tape inside the bottom piece of the case.
>

17984. MTR-5B

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-07 02:07:04 UTC
From: Robin
Topic: 16001 Message: 17984

This question probably has been asked before but I just cannot find the answer. Is there any way to change the display color on the MTR-5B? The older I get my eyes the less I can see clearly. On my ATS-4B the amber color is perfect for me. Any help would be very greatly appreciated.

72/73,
Robin
W4IEN
w4ien@...

17985. RE: [AT_Sprint] MTR-5B

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-07 16:32:46 UTC
From: Steven Weber
Topic: 16001 Message: 17985
Attachments: 1 described; binary payloads are missing from this source WARC

The current display would have to be removed from the board and a new one installed. It can be done, but is not easy without good desoldering tools.

KD1JV

This question probably has been asked before but I just cannot find the answer. Is there any way to change the display color on the MTR-5B? The older I get my eyes the less I can see clearly. On my ATS-4B the amber color is perfect for me. Any help would be very greatly appreciated.

72/73,
Robin
W4IEN
w4ien@...

17986. Re: [AT_Sprint] MTR-5B [1 Attachment]

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-07 16:56:52 UTC
From: W4IEN
Topic: 16001 Message: 17986

Steve,
Thank you for the quick response.

72/73,
Robin
W4IEN
w4ien@comcast.net

> On Jun 7, 2017, at 12:32, Steven Weber steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> [Attachment(s) from Steven Weber included below]
>
>
> The current display would have to be removed from the board and a new one installed. It can be done, but is not easy without good desoldering tools.
>
>
>
> KD1JV
>
> This question probably has been asked before but I just cannot find the answer. Is there any way to change the display color on the MTR-5B? The older I get my eyes the less I can see clearly. On my ATS-4B the amber color is perfect for me. Any help would be very greatly appreciated.
>
>
>
> 72/73,
>
> Robin
>
> W4IEN
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> w4ien@...
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17987. Looking for ATS-3B and ATS-4B

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-08 22:35:13 UTC
From: W4IEN
Topic: 17987 Message: 17987

If anyone has an ATS-3B or ATS-4B that you would be willing to part with please send me your price. Really looking for both if you have them.

72/73,
Robin
W4IEN
w4ien@...

17988. Re: Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-09 19:31:05 UTC
From: Randy Moore
Topic: 17715 Message: 17988

Camil,

I would like to flash your firmware into my SP, but I'm totally unfamiliar with how this is done. I understand the hardware side of interrfacing the Arduino Uno to the SP, and doing the actual flashing operation, but I don't know how to get the source code from GitHub and and compile it into the flashable firmware. Can you point me to the steps for doing this?

Tnx es 73,
Randy, KS4L

PS My low sensitivity problem with my SP was a simple poor solder joint!! Steve found it for me... Pretty embarassing...

------ Original Message ------
From: "Camil Staps pd7lol@... [AT_Sprint]"
<AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: 5/4/2017 7:23:55 AM
Subject: Re: [AT_Sprint] Re: SODA POP source code

>
>To celebrate the one-month anniversary of your email, beacon mode has
>been implemented!
>
>Press the keyer switch during transmission of any message to
>enable/disable beacon mode. The display will read `bcn` instead of
>`Snd`.
>
>It is now also possible to prematurely end an active transmission, by
>pressing the RIT switch.
>
>Related to this: I have also implemented an option to allow for up to
>10
>message memories. They can then be selected using the rotary encoder
>rather than the paddle. A digit on the display identifies the selected
>memory.
>There have been some other changes and new features as well, but I
>won't
>list every change here. They are well documented in the readme on the
>URL below, but if anything is unclear, don't hesitate to ask of course.
>
>For reference, here is the link to my firmware:
>https://github.com/camilstaps/SODA-POP-source
>

>73,
>Camil, PD7LOL
>On 2017-04-04 09:14 PM, dl2arl@... [AT_Sprint]
><AT_Sprint@yahoogroups.com> wrote:
> > "With the Arduino source code it is very easy to make changes, so
>that was also a very nice decision. Nice work, Steve!"
> >
> > ... a nice feature to resuscitate would be the beacon loop mode... I
>miss this option with both the MTR2bander and will miss it with the
>soda pop too.
> >
> > 73, Razvan DL2ARL
> >
>
>

17989. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-11 08:17:26 UTC
From: Camil Staps
Topic: 17715 Message: 17989

Randy,

On the repository with the code [1] there is a green "Clone or download" button with below it a "Download ZIP" option. After you have unzipped that file, you should have a directory SODA_POP and a directory Si5351Arduino-master.

In the Arduino IDE, go to Sketch > Libraries > Add ZIP library (the exact texts may differ depending on the IDE version). Navigate to the downloaded directory and add the Si5351Arduino-master directory as a library.

In the IDE, set Tools > Board to Arduino/Genuino Uno.

Next, still in the Arduino IDE, open the SODA_POP.ino sketch (from the SODA_POP) directory. You should then be able to compile ("verify" / Ctrl-R) and upload your code to the chip (Ctrl-U).

Most of this is setup, to flash again you only need the last step, since the IDE remembers what libraries you have and what board you use.

Don't hesitate to ask if anything is unclear!

73,
Camil, PD7LOL

[1]: https://github.com/camilstaps/SODA-POP-source

On 2017-06-09 07:31 PM, 'Randy Moore' wrmoore47@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
> Camil,
>
> I would like to flash your firmware into my SP, but I'm totally
> unfamiliar with how this is done. I understand the hardware side of
> interrfacing the Arduino Uno to the SP, and doing the actual flashing
> operation, but I don't know how to get the source code from GitHub and
> and compile it into the flashable firmware. Can you point me to the
> steps for doing this?
>
> Tnx es 73,
> Randy, KS4L
>
> PS My low sensitivity problem with my SP was a simple poor solder
> joint!! Steve found it for me... Pretty embarassing...
>
> ------ Original Message ------
> From: "Camil Staps pd7lol@... [AT_Sprint]"

> <AT_Sprint@yahoogroups.com>
> To: AT_Sprint@yahoogroups.com
> Sent: 5/4/2017 7:23:55 AM
> Subject: Re: [AT_Sprint] Re: SODA POP source code
>
>>
>> To celebrate the one-month anniversary of your email, beacon mode has
>> been implemented!
>>
>> Press the keyer switch during transmission of any message to
>> enable/disable beacon mode. The display will read `bcn` instead of `Snd`.
>>
>> It is now also possible to prematurely end an active transmission, by
>> pressing the RIT switch.
>>
>> Related to this: I have also implemented an option to allow for up to 10
>> message memories. They can then be selected using the rotary encoder
>> rather than the paddle. A digit on the display identifies the selected
>> memory.
>> There have been some other changes and new features as well, but I won't
>> list every change here. They are well documented in the readme on the
>> URL below, but if anything is unclear, don't hesitate to ask of course.
>>
>> For reference, here is the link to my firmware:
>> https://github.com/camilstaps/SODA-POP-source
>>
>> 73,
>> Camil, PD7LOL
>> On 2017-04-04 09:14 PM, dl2arl@... [AT_Sprint]
>> <AT_Sprint@yahoogroups.com> wrote:
>> > "With the Arduino source code it is very easy to make changes, so
>> that was also a very nice decision. Nice work, Steve!"
>> >
>> > ... a nice feature to resuscitate would be the beacon loop mode... I
>> miss this option with both the MTR2bander and will miss it with the
>> soda pop too.
>> >
>> > 73, Razvan DL2ARL
>> >
>>
>>

17990. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-11 12:35:04 UTC
From: Randy Moore
Topic: 17715 Message: 17990

Camil,

Excellent. Just what I needed I think.

On the Arduino Uno, there seem to be various versions around. Can you advise on a low cost one that will do the job? And does the IDE come with it? If not, what do you recommend?

Thanks!

73,
Randy, KS4L

> On Jun 11, 2017, at 3:17 AM, Camil Staps pd7lol@... [AT_Sprint]
<AT_Sprint@yahoogroups.com> wrote:
>
> Randy,
>
> On the repository with the code [1] there is a green "Clone or download"
> button with below it a "Download ZIP" option. After you have unzipped
> that file, you should have a directory SODA_POP and a directory
> Si5351Arduino-master.
>
> In the Arduino IDE, go to Sketch > Libraries > Add ZIP library (the
> exact texts may differ depending on the IDE version). Navigate to the
> downloaded directory and add the Si5351Arduino-master directory as a
> library.
>
> In the IDE, set Tools > Board to Arduino/Genuino Uno.
>
> Next, still in the Arduino IDE, open the SODA_POP.ino sketch (from the
> SODA_POP) directory. You should then be able to compile ("verify" /
> Ctrl-R) and upload your code to the chip (Ctrl-U).
>
> Most of this is setup, to flash again you only need the last step, since
> the IDE remembers what libraries you have and what board you use.
>
> Don't hesitate to ask if anything is unclear!
>
> 73,
> Camil, PD7LOL
>
> [1]: https://github.com/camilstaps/SODA-POP-source
>
> On 2017-06-09 07:31 PM, 'Randy Moore' wrmoore47@... [AT_Sprint]
> <AT_Sprint@yahoogroups.com> wrote:
> > Camil,

> >
> > I would like to flash your firmware into my SP, but I'm totally
> > unfamiliar with how this is done. I understand the hardware side of
> > interrfacing the Arduino Uno to the SP, and doing the actual flashing
> > operation, but I don't know how to get the source code from GitHub and
> > and compile it into the flashable firmware. Can you point me to the
> > steps for doing this?
> >
> > Tnx es 73,
> > Randy, KS4L
> >
> > PS My low sensitivity problem with my SP was a simple poor solder
> > joint!! Steve found it for me... Pretty embarassing...
> >
> > ------ Original Message ------
> > From: "Camil Staps pd7lol@... [AT_Sprint]"
> > <AT_Sprint@yahoogroups.com>
> > To: AT_Sprint@yahoogroups.com
> > Sent: 5/4/2017 7:23:55 AM
> > Subject: Re: [AT_Sprint] Re: SODA POP source code
> >
> >>
> >> To celebrate the one-month anniversary of your email, beacon mode has
> >> been implemented!
> >>
> >> Press the keyer switch during transmission of any message to
> >> enable/disable beacon mode. The display will read `bcn` instead of `Snd`.
> >>
> >> It is now also possible to prematurely end an active transmission, by
> >> pressing the RIT switch.
> >>
> >> Related to this: I have also implemented an option to allow for up to 10
> >> message memories. They can then be selected using the rotary encoder
> >> rather than the paddle. A digit on the display identifies the selected
> >> memory.
> >> There have been some other changes and new features as well, but I won't
> >> list every change here. They are well documented in the readme on the
> >> URL below, but if anything is unclear, don't hesitate to ask of course.
> >>
> >> For reference, here is the link to my firmware:
> >> https://github.com/camilstaps/SODA-POP-source
> >>
> >> 73,
> >> Camil, PD7LOL
> >> On 2017-04-04 09:14 PM, dl2arl@... [AT_Sprint]
> >> <AT_Sprint@yahoogroups.com> wrote:
> >> > "With the Arduino source code it is very easy to make changes, so
> >> that was also a very nice decision. Nice work, Steve!"
> >> >
> >> > ... a nice feature to resuscitate would be the beacon loop mode... I

> >> miss this option with both the MTR2bander and will miss it with the
> >> soda pop too.
> >> >
> >> > 73, Razvan DL2ARL
> >> >
> >>
> >>
>

17991. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-11 13:02:46 UTC
From: Shirley Márquez Dúlcey
Topic: 17715 Message: 17991

Nearly all the Uno clones are identical; the design of the Uno is open source so they just use the original design. (The Arduino BRAND is trademarked so the clones can't actually call themselves Arduino, but the packaging can include phrases like "Arduino-compatible" or "made from the Arduino schematics".) Some cheap ones from China use a different chip (CH340G, an inexpensive chip designed in China) for the USB-serial conversion; if you get one of those you'll have to install a driver if you use Windows 7 or earlier because its driver isn't included with the Arduino software. Windows 8 and 10 automatically download the driver from Windows Update.

There are some boards similar to the Uno that use soldered-on surface mount chips instead of an ATMega328P in a DIP package. Avoid those. They're fine for most uses, but not if you want to use your Uno to program a chip for your SODA POP.

The boards (including official Arduino products) never come with software. You download the IDE from arduino.cc It works on Windows, macOS, and Linux; the software is Java-based so you will also need to install the Java Runtime Environment (JRE). Many Linux distributions have a version of the Arduino IDE in their repositories but it's usually badly out of date, so don't use it - but it's handy to install it once because installing it will set up the necessary permissions to let you use the serial port as a non-root user and will install the necessary JRE. Then remove it (but DON'T uninstall the JRE) and use the one from arduino.cc instead.

If you buy a clone you don't contribute anything to support the Arduino project. Consider making a donation to arduino.cc if you find the boards and software useful.

On Sun, Jun 11, 2017 at 8:35 AM, Randy Moore wrmoore47@...
[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Camil,
>
> Excellent. Just what I needed I think.
>
> On the Arduino Uno, there seem to be various versions around. Can you
> advise on a low cost one that will do the job? And does the IDE come with
> it? If not, what do you recommend?
>
> Thanks!
>
> 73,

> Randy, KS4L
>
> On Jun 11, 2017, at 3:17 AM, Camil Staps pd7lol@... [AT_Sprint]
> <AT_Sprint@yahoogroups.com> wrote:
>
>
>
> Randy,
>
> On the repository with the code [1] there is a green "Clone or download"
> button with below it a "Download ZIP" option. After you have unzipped
> that file, you should have a directory SODA_POP and a directory
> Si5351Arduino-master.
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> In the Arduino IDE, go to Sketch > Libraries > Add ZIP library (the
> exact texts may differ depending on the IDE version). Navigate to the
> downloaded directory and add the Si5351Arduino-master directory as a
> library.
>
> In the IDE, set Tools > Board to Arduino/Genuino Uno.
>
> Next, still in the Arduino IDE, open the SODA_POP.ino sketch (from the
> SODA_POP) directory. You should then be able to compile ("verify" /
> Ctrl-R) and upload your code to the chip (Ctrl-U).
>
> Most of this is setup, to flash again you only need the last step, since
> the IDE remembers what libraries you have and what board you use.
>
> Don't hesitate to ask if anything is unclear!
>
> 73,
> Camil, PD7LOL
>
> [1]: https://github.com/camilstaps/SODA-POP-source
>
> On 2017-06-09 07:31 PM, 'Randy Moore' wrmoore47@... [AT_Sprint]
> <AT_Sprint@yahoogroups.com> wrote:
> > Camil,
> >
> > I would like to flash your firmware into my SP, but I'm totally
> > unfamiliar with how this is done. I understand the hardware side of
> > interrfacing the Arduino Uno to the SP, and doing the actual flashing
> > operation, but I don't know how to get the source code from GitHub and
> > and compile it into the flashable firmware. Can you point me to the
> > steps for doing this?
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> > Tnx es 73,
> > Randy, KS4L
> >
> > PS My low sensitivity problem with my SP was a simple poor solder

> > joint!! Steve found it for me... Pretty embarassing...
> >
> > ------ Original Message ------
> > From: "Camil Staps pd7lol@... [AT_Sprint]"
> > <AT_Sprint@yahoogroups.com>
> > To: AT_Sprint@yahoogroups.com
> > Sent: 5/4/2017 7:23:55 AM
> > Subject: Re: [AT_Sprint] Re: SODA POP source code
> >
> >>
> >> To celebrate the one-month anniversary of your email, beacon mode has
> >> been implemented!
> >>
> >> Press the keyer switch during transmission of any message to
> >> enable/disable beacon mode. The display will read `bcn` instead of
> `Snd`.
> >>
> >> It is now also possible to prematurely end an active transmission, by
> >> pressing the RIT switch.
> >>
> >> Related to this: I have also implemented an option to allow for up to 10
> >> message memories. They can then be selected using the rotary encoder
> >> rather than the paddle. A digit on the display identifies the selected
> >> memory.
> >> There have been some other changes and new features as well, but I won't
> >> list every change here. They are well documented in the readme on the
> >> URL below, but if anything is unclear, don't hesitate to ask of course.
> >>
> >> For reference, here is the link to my firmware:
> >> https://github.com/camilstaps/SODA-POP-source
> >>
> >> 73,
> >> Camil, PD7LOL
> >> On 2017-04-04 09:14 PM, dl2arl@... [AT_Sprint]
> >> <AT_Sprint@yahoogroups.com> wrote:
> >> > "With the Arduino source code it is very easy to make changes, so
> >> that was also a very nice decision. Nice work, Steve!"
> >> >
> >> > ... a nice feature to resuscitate would be the beacon loop mode... I
> >> miss this option with both the MTR2bander and will miss it with the
> >> soda pop too.
> >> >
> >> > 73, Razvan DL2ARL
> >> >
> >>
> >>
>
>
>

17992. Re: Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-11 19:17:01 UTC
From: Randy Moore
Topic: 17715 Message: 17992

Thanks Shirley and Camil! I've got everything done, down through Verify/Compile of the Sketch. Now to obtain an Arduino Uno and do the upload!

73,
Randy, KS4L

------ Original Message ------
From: "Shirley Márquez Dúlcey mark@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: 6/11/2017 8:02:46 AM
Subject: Re: [AT_Sprint] Re: SODA POP source code

>
>
>Nearly all the Uno clones are identical; the design of the Uno is open
>source so they just use the original design. (The Arduino BRAND is
>trademarked so the clones can't actually call themselves Arduino, but
>the packaging can include phrases like "Arduino-compatible" or "made
>from the Arduino schematics".) Some cheap ones from China use a
>different chip (CH340G, an inexpensive chip designed in China) for the
>USB-serial conversion; if you get one of those you'll have to install a
>driver if you use Windows 7 or earlier because its driver isn't
>included with the Arduino software. Windows 8 and 10 automatically
>download the driver from Windows Update.
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>There are some boards similar to the Uno that use soldered-on surface
>mount chips instead of an ATMega328P in a DIP package. Avoid those.
>They're fine for most uses, but not if you want to use your Uno to
>program a chip for your SODA POP.
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>The boards (including official Arduino products) never come with
>software. You download the IDE from arduino.cc It works on Windows,
>macOS, and Linux; the software is Java-based so you will also need to
>install the Java Runtime Environment (JRE). Many Linux distributions
>have a version of the Arduino IDE in their repositories but it's
>usually badly out of date, so don't use it - but it's handy to install
>it once because installing it will set up the necessary permissions to
>let you use the serial port as a non-root user and will install the
>necessary JRE. Then remove it (but DON'T uninstall the JRE) and use the
>one from arduino.cc instead.
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>If you buy a clone you don't contribute anything to support the Arduino
>project. Consider making a donation to arduino.cc if you find the
>boards and software useful.

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>On Sun, Jun 11, 2017 at 8:35 AM, Randy Moore wrmoore47@...
>[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
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>>Camil,
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>>Excellent. Just what I needed I think.
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>>On the Arduino Uno, there seem to be various versions around. Can you
>>advise on a low cost one that will do the job? And does the IDE come
>>with it? If not, what do you recommend?
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>>Thanks!
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>>On Jun 11, 2017, at 3:17 AM, Camil Staps pd7lol@...
>>[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
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>>>Randy,
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>>>On the repository with the code [1] there is a green "Clone or
>>>download"
>>>button with below it a "Download ZIP" option. After you have unzipped
>>>that file, you should have a directory SODA_POP and a directory
>>>Si5351Arduino-master.
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>>>In the Arduino IDE, go to Sketch > Libraries > Add ZIP library (the
>>>exact texts may differ depending on the IDE version). Navigate to the
>>>downloaded directory and add the Si5351Arduino-master directory as a
>>>library.
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>>>In the IDE, set Tools > Board to Arduino/Genuino Uno.
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>>>Next, still in the Arduino IDE, open the SODA_POP.ino sketch (from
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>>>SODA_POP) directory. You should then be able to compile ("verify" /
>>>Ctrl-R) and upload your code to the chip (Ctrl-U).
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>>>Most of this is setup, to flash again you only need the last step,
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>>>the IDE remembers what libraries you have and what board you use.
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>>>Don't hesitate to ask if anything is unclear!
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>>>[1]: https://github.com/camilstaps/SODA-POP-source
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>>> > Randy, KS4L
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>>> > PS My low sensitivity problem with my SP was a simple poor solder
>>> > joint!! Steve found it for me... Pretty embarassing...
>>> >
>>>
>>>
>

17993. ATS3-B, ATS-4B and Wilderness Sierra

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-11 20:14:00 UTC
From: W4IEN
Topic: 17993 Message: 17993

If anyone has an ATS3-B or ATS-4B or Wilderness Sierra they would be willing to part with I would really like to purchase it, or all three. I am getting too old to build kits any more because my eyes just cannot handle it anymore so I am not interested in a kit. I can pay by Postal MO or Cashiers Check. Thank you all for this off topic request.

72/73,
Robin
W4IEN
w4ien@...

17994. Looking for MTR 2 band version.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-11 06:42:14 UTC
From: sq7iqi@...
Topic: 17994 Message: 17994

I'm looking for MTR version with 2 band. Could be assembled 80m/60m, or maybe somebody still have in his drawer PCB with CPU ??

17995. MTR5 clock battery; our observations/solutions

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-12 00:52:29 UTC
From: Fred Maas
Topic: 17995 Message: 17995

John, K1JD, and I, have MTR5's... Like so many, we found the time function to be unreliable. The battery connection would make or open unreliably leading to the clock losing its memory, and other inconsistent things behaviors.

John placed a tiny square of solderwick beneath the clip that holds the battery.

I believe the problem stems from the clip being bent improperly by a very small amount preventing the battery from seating properly. I used forceps to slightly bend the clip away from the holder close to the original bend, then grabbed the clip with the forceps in the middle and put another bend in it toward the battery. The battery now fits into the holder completely, seats properly, and is held tightly in place.

Following both approaches, the battery is securely held, the connection remains consistent. The faults previously experienced have totally disappeared.

I pulled my battery after three months to find that its voltage had dropped from 3.000 volts to 2.996 volts. John has had his battery in place much longer. In other words, neither battery has not run down significantly. We have both found the time to keep very well, losing perhaps a minute a month.

Perhaps this experience will help others deal with the problem and retain the very nice time-on-screen feature.

73, Fred KT5X (aka WS0TA)

17996. Re: [AT_Sprint] MTR5 clock battery; our observations/solutions

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-12 03:10:53 UTC
From: Dale Putnam
Topic: 17995 Message: 17996

I found the same thing Fred same fix took care of half doz built here

Make this a great day
Dale

On Jun 11, 2017, at 6:58 PM, 'Fred Maas'
just.one.hill@gmail.com<mailto:just.one.hill@gmail.com> [AT_Sprint]
<AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

John, K1JD, and I, have MTR5's... Like so many, we found the time function to be unreliable. The battery connection would make or open unreliably leading to the clock losing its memory, and other inconsistent things behaviors.

John placed a tiny square of solderwick beneath the clip that holds the battery.

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73, Fred KT5X (aka WS0TA)

17997. Re: [AT_Sprint] MTR5 clock battery; our observations/solutions

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-12 04:40:12 UTC
From: Mike Olbrisch
Topic: 17995 Message: 17997

I tried listening 4 you guys yesterday evening, but it wasn't to be. OTOH, I got to chase Kreuzberg DM/BM-241 on 2m-SSB for SOTA complete. My FT-817 with a 1/4-wave on a 26km path from the garden was 57. We will visit Kreuzberg for the food and bier this week, perhaps an activation too. My daughter may activate it for SOTA complete. 9 y/o Bobby failed his test, so no radio for him.

Vy73 - Mike - KD5KC.
El Paso, TX. DM61rt.
W5-SOTA Association Manager.
SOTA Info: www.na-sota.org/

On Jun 12, 2017 02:52, "'Fred Maas' just.one.hill@gmail.com [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:

John, K1JD, and I, have MTR5's... Like so many, we found the time function to be unreliable. The battery connection would make or open unreliably leading to the clock losing its memory, and other inconsistent things behaviors.

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73, Fred KT5X (aka WS0TA)

17998. Re: [AT_Sprint] Looking for MTR 2 band version.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-12 17:28:10 UTC
From: Steven Weber
Topic: 17994 Message: 17998

The 2 band MTR was never offered with 80m or 60m. 80M band data is in the firmware, but not 60M, that would require adding it to the source code and reflashing the processor.

KD1JV

I'm looking for MTR version with 2 band. Could be assembled 80m/60m, or maybe somebody still have in his drawer PCB with CPU ??

17999. Re: [AT_Sprint] Looking for MTR 2 band version.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-12 17:59:15 UTC
From: Colin Tuckley
Topic: 17994 Message: 17999

On 12/06/17 18:28, Steven Weber wrote:

> The 2 band MTR was never offered with 80m or 60m. 80M band data is in
> the firmware, but not 60M, that would require adding it to the source
> code and reflashing the processor.

My version of the firmware, which is in the files section supports 60m.

Also the parts required for 60m are detailed in a posting to the Forum.

73, Colin G8TMV

--
Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
Debian Developer | +44(0)7799 143369 | 0xFA0C410738C9D903

18000. Re: Re: Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-12 18:01:43 UTC
From: Randy Moore
Topic: 17715 Message: 18000

I now have an Arduino Uno R3!

Before I make my changes to Settings and Defines and then re-flash, I need to know whether my current calibration data in the SP will be preserved when I re-flash, or will I have to re-do the calibration after flashing the new firmware?

73,
Randy, KS4L

------ Original Message ------
From: "Randy Moore" <wrmoore47@...>
To: AT_Sprint@yahoogroups.com
Sent: 6/11/2017 2:17:01 PM
Subject: Re: Re: [AT_Sprint] Re: SODA POP source code

>Thanks Shirley and Camil! I've got everything done, down through
>Verify/Compile of the Sketch. Now to obtain an Arduino Uno and do the
>upload!
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>73,
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>------ Original Message ------
>From: "Shirley Márquez Dúlcey mark@... [AT_Sprint]"
><AT_Sprint@yahoogroups.com>
>To: AT_Sprint@yahoogroups.com
>Sent: 6/11/2017 8:02:46 AM
>Subject: Re: [AT_Sprint] Re: SODA POP source code
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>>Nearly all the Uno clones are identical; the design of the Uno is open
>>source so they just use the original design. (The Arduino BRAND is
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>>from the Arduino schematics".) Some cheap ones from China use a
>>different chip (CH340G, an inexpensive chip designed in China) for the
>>USB-serial conversion; if you get one of those you'll have to install
>>a driver if you use Windows 7 or earlier because its driver isn't
>>included with the Arduino software. Windows 8 and 10 automatically
>>download the driver from Windows Update.
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>>There are some boards similar to the Uno that use soldered-on surface
>>mount chips instead of an ATMega328P in a DIP package. Avoid those.
>>They're fine for most uses, but not if you want to use your Uno to

>>program a chip for your SODA POP.
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>>The boards (including official Arduino products) never come with
>>software. You download the IDE from arduino.cc It works on Windows,
>>macOS, and Linux; the software is Java-based so you will also need to
>>install the Java Runtime Environment (JRE). Many Linux distributions
>>have a version of the Arduino IDE in their repositories but it's
>>usually badly out of date, so don't use it - but it's handy to install
>>it once because installing it will set up the necessary permissions to
>>let you use the serial port as a non-root user and will install the
>>necessary JRE. Then remove it (but DON'T uninstall the JRE) and use
>>the one from arduino.cc instead.
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>>If you buy a clone you don't contribute anything to support the
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>>>Thanks!
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>>>73,
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>>>On Jun 11, 2017, at 3:17 AM, Camil Staps pd7lol@...
>>>[AT_Sprint] <AT_Sprint@...m> wrote:
>>>
>>>>
>>>>Randy,
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>>>>On the repository with the code [1] there is a green "Clone or
>>>>download"
>>>>button with below it a "Download ZIP" option. After you have
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18001. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-12 18:17:50 UTC
From: Camil Staps
Topic: 17715 Message: 18001

Great!

The EEPROM memory is persistent over programming cycles, however, my
version uses a slightly different memory map. This was needed, because
the correction of the Si5351 chip required 4 bytes whereas only 2 are
reserved in the old map. So you can expect some odd results.

You can also take the chip from the Arduino Uno and program that one
instead of the original, so that you have a backup.

By the way: be sure to edit settings.h to suit your personal
preferences. Documentation on the different options is in README.md.

73,
Camil, PD7LOL
On 2017-06-12 06:01 PM, 'Randy Moore' wrmoore47@... [AT_Sprint]
<AT_Sprint@yahoogroups.com> wrote:
> I now have an Arduino Uno R3!
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> Before I make my changes to Settings and Defines and then re-flash, I
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> preserved when I re-flash, or will I have to re-do the calibration after
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> From: "Randy Moore" <wrmoore47@...>
> To: AT_Sprint@yahoogroups.com
> Sent: 6/11/2017 2:17:01 PM
> Subject: Re: Re: [AT_Sprint] Re: SODA POP source code
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>> From: "Shirley Márquez Dúlcey mark@... [AT_Sprint]"
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18002. Re: [AT_Sprint] Looking for MTR 2 band version.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-12 20:22:13 UTC
From: sq7iqi@...
Topic: 17994 Message: 18002

Yes I know that ;) 60m is new one in SP, so I need some tiny smart radio for this band. We have really nice working hamnet on 80 and 60 for CW fans.

18003. NAQCC June Sprint tomorrow

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-13 00:51:24 UTC
From: Larry Makoski
Topic: 18003 Message: 18003

The June NAQCC sprint is this coming Tuesday evening local time (June 13th, EDT - 8:30-10:30PM, CDT - 7:30-9:30PM, MDT - 6:30-8:30PM, PDT - 5:30-7:30PM),
which translates as Wednesaday,June 14th, 0030 to 0230Z in all cases.

For all the "official" information, please go to:

http://naqcc.info/sprint/sprint201706.html

There you will find all the details as to time, frequencies and other important
information.

Certificates: SWA (simple wire antennas) certificates by call area, VE and DX
for 1st, 2nd and 3rd place finishers (New!). A Certificate for top score in the
GAIN antenna category.

Prizes: Too many to list!! - check out the prizes page on our website.

This is a monthly event that caters to the CW veteran, the CW newcomer, straight
key and bug fans. All are welcome to participate (this includes QRO); but you
must use QRP power levels to compete for awards.

If you've been hesitant to join in our sprints because you hear other sprints
running at breakneck speeds, have no fear. Our sprints are geared to the
newcomer to CW and/or contesting. Virtually everyone including the many veteran
contesters who regularly enter our sprints will slow down to YOUR speed to help
you make your contacts.

If you are not already a member of NAQCC... membership is FREE! Now is your
chance to join the largest QRP CW Club in the world!! We currently have 7100+
members in: All 50 States - 9 VE Provinces - 100 Countries. Sign up on the
NAQCC website today (http://naqcc.info/) and receive a handsome certificate,
with your membership number on it, which is good for life.

Come join us and have a real good time!

72/73 de Larry W2LJ
NAQCC #35

for NAQCC
http://naqcc.info/

18004. Re: Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-13 01:33:32 UTC
From: Randy Moore
Topic: 17715 Message: 18004

Camil and the group,

I took your advice and programmed the ATMEGA chip that came with the Arduino Uno. That seemed to go ok. Before swapping the original chip for the new one, I checked the SP for operation with the original chip, and all was working. So then I swapped the old ATMEGA for the new one. Powering up the SP, the display showed "corr." as expected. But I couldn't hear the 10 Mhz signal in my K3, using an insulated wire near the SP and run into the ANT1 jack of my K3 (this works with the old chip, verified after I swapped the original chip back into the SP). I clicked through the other CAL steps with the Keyer button on the SP just to see what I could hear on the SP rx. All I could hear was something sounding like a CPU clock - no signals at all. I swapped the original ATMEGA chip back into the SP, and all returned to normal.

The firmware that I uploaded to the new ATMEGA chip seems to function fine as far as the user interface functions, but something else is wrong.

Any ideas what I did wrong????? I did comment out some of the optionsl #defines (/*...*/) in settings.h.

73,
Randy, KS4L

------ Original Message ------
From: "Camil Staps pd7lol@camilstaps.nl [AT_Sprint]"
<AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: 6/12/2017 1:17:50 PM
Subject: Re: [AT_Sprint] Re: SODA POP source code

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18005. Re: MTR5 clock battery; our observations/solutions

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-13 12:24:39 UTC
From: John K1JD
Topic: 17995 Message: 18005

Following up on Fred's posting, I have built two MTR-5Bs.

The first was completed in October 2015 and still has the original backup coin battery that's been working fine for just shy of 2 years. That rig is installed in a small Pelican case and used successfully on about 100 SOTA activations.

The second was completed this past winter and that coin battery is also working fine. It's packaged in a Palm Pico Paddle box and has been on dozens of SOTA activations. Like its older sibling, it has been 100% reliable including the backup coin battery.

As Fred mentioned, we have found the coin battery holder to be an issue. I bent the holder contacts for the first MTR and used the small square of solder wick as a shim in the second. Both approaches hold the battery more securely while maintaining a better electrical connection.

73
John K1JD

18006. Re: MTR5 clock battery; our observations/solutions

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-13 13:30:45 UTC
From: Roger
Topic: 17995 Message: 18006

Perhaps I can clarify the battery issue a bit. When I got my MTR5B earlier this year, the battery died in short order. I worked with Steve on this, trying various things. The problem comes with a different display that was introduced at some point. The display does not "go to sleep" on power down so it is continuously drawing enough current that the battery lasts a couple of weeks rather than a year or longer with the older display. My solution is to put a slip of paper under the battery clip when I am not operating. The other option, as Steve has mentioned, is to put a double AAA battery holder in the rig to replace the function of the button cell.

I hope this helps the confusion rather than adding to it.

73 K9LJB

18007. Re: Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-13 04:36:14 UTC
From: Gunnar Mildh
Topic: 17715 Message: 18007

Hi,
I don't know if this would help, but when I uploaded Steves original Source code to my own Arduino chip the Sodapop was not working fully. It turned out I needed to declare more variables as volatile since the state of the variables could change at any time e.g. due to button pushes, interrups.

Without volatile some compilers optimizes the code, only reading the variable once during a subroutine. Changing all variables to volatile solved the problem.
Regards,
Gunnar

Den 13 juni 2017 3:33 fm skrev "'Randy Moore' wrmoore47@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>:

Camil and the group,

I took your advice and programmed the ATMEGA chip that came with the Arduino Uno. That seemed to go ok. Before swapping the original chip for the new one, I checked the SP for operation with the original chip, and all was working. So then I swapped the old ATMEGA for the new one. Powering up the SP, the display showed "corr." as expected. But I couldn't hear the 10 Mhz signal in my K3, using an insulated wire near the SP and run into the ANT1 jack of my K3 (this works with the old chip, verified after I swapped the original chip back into the SP). I clicked through the other CAL steps with the Keyer button on the SP just to see what I could hear on the SP rx. All I could hear was something sounding like a CPU clock - no signals at all. I swapped the original ATMEGA chip back into the SP, and all returned to normal.

The firmware that I uploaded to the new ATMEGA chip seems to function fine as far as the user interface functions, but something else is wrong.

Any ideas what I did wrong????? I did comment out some of the optionsl #defines (/*...*/) in settings.h.

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From: "Camil Staps pd7lol@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: 6/12/2017 1:17:50 PM
Subject: Re: [AT_Sprint] Re: SODA POP source code

Great!

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You can also take the chip from the Arduino Uno and program that one
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By the way: be sure to edit settings.h to suit your personal
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18008. Re: Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-13 17:11:03 UTC
From: Shirley Márquez Dúlcey
Topic: 17715 Message: 18008

Gunnar, that could mean that you used a more recent version of the Arduino IDE than Steve did when he built the SODA POP firmware. Your compiler probably did some optimizations that Steve's did not and broke the code.

The Arduino IDE uses avr-gcc for AVR-based Arduinos, in other words the GNU Compiler Collection with AVR as its target. The developers replace the version used by Arduino with a newer one from time to time. Atmel Studio also uses avr-gcc.

Anything that depends on hardware or that can be changed by code in an interrupt handler should be declared volatile. That keyword forces the compiler to generate code that fetches the value from memory (or a hardware register if the variable points at one) every time you use the variable, rather than storing its value in a register and reusing it.

On Tue, Jun 13, 2017 at 12:36 AM, Gunnar Mildh gmildh@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

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> >>>> On Jun 11, 2017, at 3:17 AM, Camil Staps pd7lol@...
> >>>> [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
> >>>>
> >>>>>
> >>>>> Randy,
> >>>>>
> >>>>> On the repository with the code [1] there is a green "Clone or
> >>>>> download"
> >>>>> button with below it a "Download ZIP" option. After you have unzipped
> >>>>> that file, you should have a directory SODA_POP and a directory
> >>>>> Si5351Arduino-master.
> >>>>>
> >>>>> In the Arduino IDE, go to Sketch > Libraries > Add ZIP library (the
> >>>>> exact texts may differ depending on the IDE version). Navigate to the
> >>>>> downloaded directory and add the Si5351Arduino-master directory as a
> >>>>> library.
> >>>>>
> >>>>> In the IDE, set Tools > Board to Arduino/Genuino Uno.
> >>>>>
> >>>>> Next, still in the Arduino IDE, open the SODA_POP.ino sketch (from
> >>>>> the
> >>>>> SODA_POP) directory. You should then be able to compile ("verify" /
> >>>>> Ctrl-R) and upload your code to the chip (Ctrl-U).
> >>>>>
> >>>>> Most of this is setup, to flash again you only need the last step,
> >>>>> since
> >>>>> the IDE remembers what libraries you have and what board you use.
> >>>>>

> >>>>> Don't hesitate to ask if anything is unclear!
> >>>>>
> >>>>> 73,
> >>>>> Camil, PD7LOL
> >>>>>
> >>>>> [1]: https://github.com/camilstaps/SODA-POP-source
> >>>>> <https://github.com/camilstaps/SODA-POP-source>
> >>>>>
> >>>>> On 2017-06-09 07:31 PM, 'Randy Moore' wrmoore47@gmail.com
> [AT_Sprint]
> >>>>> <AT_Sprint@yahoogroups.com> wrote:
> >>>>> > Camil,
> >>>>> >
> >>>>> > I would like to flash your firmware into my SP, but I'm totally
> >>>>> > unfamiliar with how this is done. I understand the hardware side of
> >>>>> > interrfacing the Arduino Uno to the SP, and doing the actual
> >>>>> flashing
> >>>>> > operation, but I don't know how to get the source code from
> >>>>> GitHub and
> >>>>> > and compile it into the flashable firmware. Can you point me to the
> >>>>> > steps for doing this?
> >>>>> >
> >>>>> > Tnx es 73,
> >>>>> > Randy, KS4L
> >>>>> >
> >>>>> > PS My low sensitivity problem with my SP was a simple poor solder
> >>>>> > joint!! Steve found it for me... Pretty embarassing...
> >>>>> >
> >>>>>
> >>>>>
> >>>
>
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>
>

18009. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-15 14:37:00 UTC
From: Camil Staps
Topic: 17715 Message: 18009
Attachments: 1 described; binary payloads are missing from this source WARC

```
The issue has been resolved in a private email exchange. Thanks again.

73,

Camil, PD7LOL

On 2017-06-13 01:33 AM, 'Randy Moore' wrmoore47@...m [AT_Sprint]
<AT_Sprint@yahoogroups.com> wrote:
> Camil and the group,
>
> I took your advice and programmed the ATMEGA chip that came with the
> Arduino Uno. That seemed to go ok. Before swapping the original chip
> for the new one, I checked the SP for operation with the original chip,
> and all was working. So then I swapped the old ATMEGA for the new one.
> Powering up the SP, the display showed "corr." as expected. But I
> couldn't hear the 10 Mhz signal in my K3, using an insulated wire near
> the SP and run into the ANT1 jack of my K3 (this works with the old
> chip, verified after I swapped the original chip back into the SP). I
> clicked through the other CAL steps with the Keyer button on the SP just
> to see what I could hear on the SP rx. All I could hear was something
> sounding like a CPU clock - no signals at all. I swapped the original
> ATMEGA chip back into the SP, and all returned to normal.
>
> The firmware that I uploaded to the new ATMEGA chip seems to function
> fine as far as the user interface functions, but something else is wrong.
>
> Any ideas what I did wrong????? I did comment out some of the optionsl
> #defines (/*...*/) in settings.h.
>
> 73,
> Randy, KS4L
>
> ------ Original Message ------
> From: "Camil Staps pd7lol@... [AT_Sprint]"
> <AT_Sprint@yahoogroups.com>
> To: AT_Sprint@yahoogroups.com
> Sent: 6/12/2017 1:17:50 PM
> Subject: Re: [AT_Sprint] Re: SODA POP source code
>
>>
>> Great!
>>
>> The EEPROM memory is persistent over programming cycles, however, my
>> version uses a slightly different memory map. This was needed, because
>> the correction of the Si5351 chip required 4 bytes whereas only 2 are
```

>> reserved in the old map. So you can expect some odd results.
>>
>> You can also take the chip from the Arduino Uno and program that one
>> instead of the original, so that you have a backup.
>>
>> By the way: be sure to edit settings.h to suit your personal
>> preferences. Documentation on the different options is in README.md.
>>
>> 73,
>> Camil, PD7LOL
>> On 2017-06-12 06:01 PM, 'Randy Moore' wrmoore47@gmail.com [AT_Sprint]
>> <AT_Sprint@yahoogroups.com> wrote:
>> > I now have an Arduino Uno R3!
>> >
>> > Before I make my changes to Settings and Defines and then re-flash, I
>> > need to know whether my current calibration data in the SP will be
>> > preserved when I re-flash, or will I have to re-do the calibration
>> after
>> > flashing the new firmware?
>> >
>> > 73,
>> > Randy, KS4L
>> >
>> > ------ Original Message ------
>> > From: "Randy Moore" <wrmoore47@...>
>> > To: AT_Sprint@yahoogroups.com
>> > Sent: 6/11/2017 2:17:01 PM
>> > Subject: Re: Re: [AT_Sprint] Re: SODA POP source code
>> >
>> >> Thanks Shirley and Camil! I've got everything done, down through
>> >> Verify/Compile of the Sketch. Now to obtain an Arduino Uno and do the
>> >> upload!
>> >>
>> >> 73,
>> >> Randy, KS4L
>> >>
>> >> ------ Original Message ------
>> >> From: "Shirley Márquez Dúlcey mark@buttery.org [AT_Sprint]"
>> >> <AT_Sprint@yahoogroups.com>
>> >> To: AT_Sprint@yahoogroups.com
>> >> Sent: 6/11/2017 8:02:46 AM
>> >> Subject: Re: [AT_Sprint] Re: SODA POP source code
>> >>
>> >>>
>> >>>
>> >>> Nearly all the Uno clones are identical; the design of the Uno is
>> >>> open source so they just use the original design. (The Arduino BRAND
>> >>> is trademarked so the clones can't actually call themselves Arduino,
>> >>> but the packaging can include phrases like "Arduino-compatible" or
>> >>> "made from the Arduino schematics".) Some cheap ones from China use a

>> >>> different chip (CH340G, an inexpensive chip designed in China) for
>> >>> the USB-serial conversion; if you get one of those you'll have to
>> >>> install a driver if you use Windows 7 or earlier because its driver
>> >>> isn't included with the Arduino software. Windows 8 and 10
>> >>> automatically download the driver from Windows Update.
>> >>>
>> >>> There are some boards similar to the Uno that use soldered-on surface
>> >>> mount chips instead of an ATMega328P in a DIP package. Avoid those.
>> >>> They're fine for most uses, but not if you want to use your Uno to
>> >>> program a chip for your SODA POP.
>> >>>
>> >>> The boards (including official Arduino products) never come with
>> >>> software. You download the IDE from arduino.cc It works on Windows,
>> >>> macOS, and Linux; the software is Java-based so you will also need to
>> >>> install the Java Runtime Environment (JRE). Many Linux distributions
>> >>> have a version of the Arduino IDE in their repositories but it's
>> >>> usually badly out of date, so don't use it - but it's handy to
>> >>> install it once because installing it will set up the necessary
>> >>> permissions to let you use the serial port as a non-root user and
>> >>> will install the necessary JRE. Then remove it (but DON'T uninstall
>> >>> the JRE) and use the one from arduino.cc instead.
>> >>>
>> >>> If you buy a clone you don't contribute anything to support the
>> >>> Arduino project. Consider making a donation to arduino.cc if you find
>> >>> the boards and software useful.
>> >>>
>> >>>
>> >>> On Sun, Jun 11, 2017 at 8:35 AM, Randy Moore wrmoore47@...
>> >>> [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>> >>>>
>> >>>>
>> >>>> Camil,
>> >>>>
>> >>>> Excellent. Just what I needed I think.
>> >>>>
>> >>>> On the Arduino Uno, there seem to be various versions around. Can
>> >>>> you advise on a low cost one that will do the job? And does the IDE
>> >>>> come with it? If not, what do you recommend?
>> >>>>
>> >>>> Thanks!
>> >>>>
>> >>>> 73,
>> >>>> Randy, KS4L
>> >>>>
>> >>>> On Jun 11, 2017, at 3:17 AM, Camil Staps pd7lol@...

>> >>>> [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>> >>>>
>> >>>>>
>> >>>>> Randy,

>> >>>>>
>> >>>>> On the repository with the code [1] there is a green "Clone or
>> >>>>> download"
>> >>>>> button with below it a "Download ZIP" option. After you have
>> unzipped
>> >>>>> that file, you should have a directory SODA_POP and a directory
>> >>>>> Si5351Arduino-master.
>> >>>>>
>> >>>>> In the Arduino IDE, go to Sketch > Libraries > Add ZIP library (the
>> >>>>> exact texts may differ depending on the IDE version). Navigate
>> to the
>> >>>>> downloaded directory and add the Si5351Arduino-master directory
>> as a
>> >>>>> library.
>> >>>>>
>> >>>>> In the IDE, set Tools > Board to Arduino/Genuino Uno.
>> >>>>>
>> >>>>> Next, still in the Arduino IDE, open the SODA_POP.ino sketch
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>> >>>>> SODA_POP) directory. You should then be able to compile ("verify" /
>> >>>>> Ctrl-R) and upload your code to the chip (Ctrl-U).
>> >>>>>
>> >>>>> Most of this is setup, to flash again you only need the last step,
>> >>>>> since
>> >>>>> the IDE remembers what libraries you have and what board you use.
>> >>>>>
>> >>>>> Don't hesitate to ask if anything is unclear!
>> >>>>>
>> >>>>> 73,
>> >>>>> Camil, PD7LOL
>> >>>>>
>> >>>>> [1]: https://github.com/camilstaps/SODA-POP-source
>> >>>>> <https://github.com/camilstaps/SODA-POP-source>
>> >>>>>
>> >>>>> On 2017-06-09 07:31 PM, 'Randy Moore' wrmoore47@...
>> [AT_Sprint]
>> >>>>> <AT_Sprint@yahoogroups.com> wrote:
>> >>>>> > Camil,
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>> >>>>> > I would like to flash your firmware into my SP, but I'm totally
>> >>>>> > unfamiliar with how this is done. I understand the hardware
>> side of
>> >>>>> > interrfacing the Arduino Uno to the SP, and doing the actual
>> >>>>> flashing
>> >>>>> > operation, but I don't know how to get the source code from
>> >>>>> GitHub and
>> >>>>> > and compile it into the flashable firmware. Can you point me
>> to the
>> >>>>> > steps for doing this?
>> >>>>> >

>> >>>>> > Tnx es 73,
>> >>>>> > Randy, KS4L

>> >>>>> >
>> >>>>> > PS My low sensitivity problem with my SP was a simple poor solder
>> >>>>> > joint!! Steve found it for me... Pretty embarassing...
>> >>>>> >
>> >>>>>
>> >>>>>
>> >>>
>>
>>

18010. FS: MTR 2 Band kit with blue case - unopened in bag

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-19 08:03:58 UTC
From: Marc Tinkler G0AZS
Topic: 18010 Message: 18010

I am clearly never going to get around to building it so my MTR 2 Band kit (still sealed in bag) with blue case is for sale.The price is £150 plus the cost of whatever shipping method gets it to where you are.

I have photos of the sealed bag of parts and the originally wrapped blue case if you want to see them. Serial number is 265 (you can see this is the photos)

73 Marc G0AZS

18011. MTR "MOUNTAIN TOP'ER" Built FS

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-21 01:12:01 UTC
From: kc7fys@...
Topic: 18011 Message: 18011

Clearing some stuff out. I forget what number this is--the number 75 sticks in my mind, but I am probably wrong.

I have for sale a built "Mountain Top'er" in powder blue/black case for sale for the original kit price plus $20 for packing and shipping. I actually don't see here what it was originally offered for, so unless someone posts the price, I'll take the best offer. The kit was built and powered up. I noted about 3.5 watts on key down with a 9V battery, but I didn't complete the calibration.

I also have a LNR Precision MOUNTAIN TOPPER case for the MTR5B for the original price plus whatever a small Priority Mail box is from Minnesota. Email me off-list, please.

I have detailed photos of both.

Thanks,
Jonathan W0XO

18012. Happy 1st Day of Summer!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-21 12:11:20 UTC
From: w2ljqrp@...
Topic: 18012 Message: 18012

Happy 1st Day of Summer! And as in the past six years, Skeeter Numbers are being issued for the 2017 NJQRP Skeeter Hunt. This fun Summer time sprint will be held on Sunday, August 20th. But don't wait until the last minute to get YOUR Skeeter number. Send an e-mail to w2lj@arrl.net along with your name, call sign and the state you'll be operating from, and a Skeeter number will be e-mailed back to you.

Need to know what all the buzz is about? See www.qsl.net/w2lj for all the high flying details.

72 de Larry W2LJ

18013. F.S. LNR MTR4b

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-21 19:36:06 UTC
From: Joe W2KJ
Topic: 18013 Message: 18013

Howdy Gang:

Too many QRP rigs here so am thinning the herd.

I offer for sale an LNR MTR4b….this is factory wired with the nice enclosure…and works FB.

This rig covers 80M-20M CW only.

Only a couple of months old and in like new condition.

Will ship for $340 CONUS only please.

73, Joe W2KJ
I QRP, therefore I am

18014. re: MTR4b for sale

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-22 18:52:02 UTC
From: Joe W2KJ
Topic: 18014 Message: 18014

Howdy Gang:

The MTR4b advertised for sale earlier has been sold.

73, Joe W2KJ
I QRP, therefore I am

18015. Re: FS: MTR 2 Band kit with blue case - unopened in bag

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-22 20:24:23 UTC
From: Marc Tinkler G0AZS
Topic: 18010 Message: 18015

Still available and, I might add, open to offers.

73 Marc G0AZS

On 19 June 2017 at 09:03, Marc Tinkler G0AZS <marc.g0azs@...> wrote:

> I am clearly never going to get around to building it so my MTR 2 Band kit
> (still sealed in bag) with blue case is for sale.The price is £150 plus the
> cost of whatever shipping method gets it to where you are.
>
> I have photos of the sealed bag of parts and the originally wrapped blue
> case if you want to see them. Serial number is 265 (you can see this is the
> photos)
>
>
> 73 Marc G0AZS
>

18016. New MTR4B and MTR5B

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-25 05:19:16 UTC
From: Robin
Topic: 18016 Message: 18016

I have decided to stick with my ATS-4B and ATS-3B so I am selling my new MTR4B and MTR5B.

MTR4B - $300 shipped

MTR5B - $300 shipped.

72/73,
Robin
W4IEN
w4ien@...

18017. Re: FS: MTR 2 Band kit with blue case - unopened in bag

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-25 05:26:09 UTC
From: Marc Tinkler G0AZS
Topic: 18010 Message: 18017

The kit is now sold. Thanks for the interest.

On 19 Jun 2017 9:03 a.m., "Marc Tinkler G0AZS" <marc.g0azs@...> wrote:

I am clearly never going to get around to building it so my MTR 2 Band kit (still sealed in bag) with blue case is for sale.The price is £150 plus the cost of whatever shipping method gets it to where you are.

I have photos of the sealed bag of parts and the originally wrapped blue case if you want to see them. Serial number is 265 (you can see this is the photos)

73 Marc G0AZS

18018. MTR5B tone.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-25 16:07:58 UTC
From: ian.kirkpatrick1@...
Topic: 18018 Message: 18018

My MTR5b generates a constant tone on 10.116mhz when I key on that frequency.

At first I thought it was coincidental QRM only to realise that it was self generated.

Please, any help or information about how I might eradicate this glitch.

Many thanks,

Ian
G4WTF

18019. MTR-4B and MTR-5B New - New Prices

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-25 23:27:50 UTC
From: w4ien
Topic: 18019 Message: 18019

Have decided that I am going a different way.
MTR-4B - $285 shipped
MTR-5B - $285 shipped
Both of these radios are brand new Have decided that I am going a different way.

72/73,

Robin

W4IEN

w4ien@...

18020. RE: [AT_Sprint] MTR5B tone.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-26 01:38:02 UTC
From: Steven Weber
Topic: 18018 Message: 18020
Attachments: 1 described; binary payloads are missing from this source WARC

You will need to explain this problem in more detail. Does this happen ONLY at 10.116 and the constant tone is in the headphones? Is it still transmitting after key up? If you tune away from 10.116 the tone goes away?

Steve KD1JV

My MTR5b generates a constant tone on 10.116mhz when I key on that frequency.
At first I thought it was coincidental QRM only to realise that it was self generated.
Please, any help or information about how I might eradicate this glitch.
Many thanks,
Ian
G4WTF
Posted by: ian.kirkpatrick1@btinternet.com

18021. SODA POP Display

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-27 06:38:22 UTC
From: eliamady@...
Topic: 18021 Message: 18021

Good morning everyone,

Apologies if this has been asked before but I cannot find out if the LED display is Common Cathode or Common Anode. Anyone knows this please?

73 Elia, M0ZHN

18022. RE: [AT_Sprint] SODA POP Display

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-27 19:11:00 UTC
From: Steven Weber
Topic: 18021 Message: 18022

Common Anode. But that can be changed by inverting the 7 segment data words and changing the digit select from high to low.

Steve KD1JV

Good morning everyone,

Apologies if this has been asked before but I cannot find out if the LED display is Common Cathode or Common Anode. Anyone knows this please?

73 Elia, M0ZHN

18023. Re: [AT_Sprint] SODA POP Display

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-27 19:42:19 UTC
From: ohwenzelph@...
Topic: 18021 Message: 18023

Dang, I bet I ordered the wrong ones.. it'll be moths before I get to it anyhow.
Jer AA1OF

Sent from my iPad

> On Jun 27, 2017, at 12:11 PM, Steven Weber steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> Common Anode. But that can be changed by inverting the 7 segment data words and changing the digit select from high to low.
>
>
>
> Steve KD1JV
>
>
>
>
>
>
> Good morning everyone,
>
>
>
> Apologies if this has been asked before but I cannot find out if the LED display is Common Cathode or Common Anode. Anyone knows this please?
>
>
>
> 73 Elia, M0ZHN
>
>
>
>
>
>
>

18024. RE: [AT_Sprint] SODA POP Display

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-28 11:02:45 UTC
From: eliamady@...
Topic: 18021 Message: 18024

Hi Steve,

Thanks for the reply. I am starting to collect parts for a custom build of the SP. Will post some photos when done.

73 Elia, M0ZHN

18025. F.S. SodaPop kit and Solder Paste

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-28 15:42:28 UTC
From: Joe W2KJ
Topic: 18025 Message: 18025

Howdy Gang:

Probably won’t find the time to build the SodaPop kit from KD1JV so will offer it for sale along with a new tube of solder paste from Cash Olsen.

The kit has been untouched other than to take a peek inside at the plastic bags which are still sealed.

Will ship and insure for $125.

Hoping I can pass this kit along to an AT enthusiast who would like to try the solder paste method of kit building.

73, Joe W2KJ
I QRP, therefore I am

18026. re: SodaPop for sale

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-28 17:02:32 UTC
From: Joe W2KJ
Topic: 18026 Message: 18026

Howdy Gang:

The SodaPop kit I advertised earlier has been sold.

73, Joe W2KJ
I QRP, therefore I am

18027. re: SodaPop for sale

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-06-28 17:11:12 UTC
From: Joe W2KJ
Topic: 18026 Message: 18027

Howdy Gang:

The SodaPop kit I advertised earlier has been sold.

73, Joe W2KJ
I QRP, therefore I am

18028. QRP on Field Day

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-01 16:29:28 UTC
From: K2QPN@...
Topic: 18028 Message: 18028

We would like to propose a change to the ARRL Field Day rules. Simply put, we would to have a separate power multiplier for each mode. SSB contacts at 100 watts would have a power multiplier of 2 and CW contacts at 5 watts would have a power multiplier of 5.

The Burlington County Radio Club has two camps of operators. The SSB operators need 100 watts to be competitive. The CW operators prefer the simplicity and challenge of QRP. In recent years, we have been trying to simplify our FD operation for ease of setup and tear down. QRP would be a step in that direction and a step towards FD's roots.

If you think our idea has merit, send an email to CONTESTS@ARRL.ORG.

73, Bob K2QPN

18029. Re: [AT_Sprint] QRP on Field Day

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-01 17:14:17 UTC
From: Hank Greeb
Topic: 18028 Message: 18029

What's the BFD about power multiplier. Any operation with 5 watts on battery power NOT charged during Field DAy on commercial or generator power is multiplier of 5. It's very easy to do that now a daze with a 100 AH marine battery or similar. My 4 AH LIPO ran 5 hours without fail with 5 watts on my KX2, and I've previously run 21 or so hours with a HW-9 on Field day with a 100 AH marine battery. It's no big deal atall.

If you use a battery hog rig for QRP, that's a problem, but there are many rigs which are power sipping dudes, so it's very very very easy to run 24 hours with for 5 watts or less.

And, tell your Silly Slop Bucket (SSB) operators that they CAN be competitive with 5 watts, it's very hard to overcome a multiplier of 5 with any rig with a power multiplier of 2. It's hard to get some folks to realize that, but if you check the largest scores, most, if not all are running Battery power at 5 watts, even the ones who have multi stations including Corn Whisky, Silly Slop Bucket, and Ratty.

It is more difficult to get rigs which can operate with two or three modes within a band, but I've done 2 CW rigs 50 KHz apart back in the 70's, each running 100 watts with antennae only 200 feet apart. Absitively no interference between rigs with 75A$ receivers, (near top of the line of those daze) and mediocre VFOs in mediocre rigs. So, if 1970 technology can do it, there's no reason that 21th centure technolgy should NOT be able to do it.

72/73 de n8xx Hg
QRP >99.44% of the time

On 7/1/2017 12:29 PM, K2QPN@... [AT_Sprint] wrote:

We would like to propose a change to the ARRL Field Day rules. Simply put, we would to have a separate power multiplier for each mode. SSB contacts at 100 watts would have a power multiplier of 2 and CW contacts at 5 watts would have a power multiplier of 5.

The Burlington County Radio Club has two camps of operators. The SSB operators need 100 watts to be competitive. The CW operators prefer the simplicity and challenge of QRP. In recent years, we have been trying to simplify our FD operation for ease of setup and tear down. QRP would be a step in that direction and a step towards FD's roots.

If you think our idea has merit, send an email to CONTESTS@....

73, Bob K2QPN

18030. Re: [AT_Sprint] QRP on Field Day

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-01 17:48:44 UTC
From: roger.whitaker@...
Topic: 18028 Message: 18030

If I understand the rules correctly, if even one position at a club station like our 6A operation is 100 watts, then there is no advantage to me running QRP since the only multiplier available is the 2X for running CW with no consideration for power level 100 Watts or below. If I had a multiplier advantage, I would most certainly run QRP CW rather than the 50 Watts or so that I run since I don't get any extra points for the extra effort.

K9LJB

18031. Re: [AT_Sprint] QRP on Field Day

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-01 19:16:56 UTC
From: Steve Saslow
Topic: 18028 Message: 18031

- - and Wow! this year's FD was a lulu-low one, for those of us QRP weakies trying to make our CW QSOs! (and too bad we couldn't use 30m, too! -as it had decent propagation and is more appropriate for low power). From out here in OR, skip appeared to be in approx 500 mile steps... also, numerous stations did not seem to be trying hard to dig out the weaker ones/I heard approx 4X more sections than I worked... Golly knows how I made so darn' few contacts!

Steve K7EW [KX-2 + B'Nut vert + radials + solar-charged scooter battery, which works quite well nearly all the rest of the time...]

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of roger.whitaker@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Saturday, July 1, 2017 10:48 AM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] QRP on Field Day

If I understand the rules correctly, if even one position at a club station like our 6A operation is 100 watts, then there is no advantage to me running QRP since the only multiplier available is the 2X for running CW with no consideration for power level 100 Watts or below. If I had a multiplier advantage, I would most certainly run QRP CW rather than the 50 Watts or so that I run since I don't get any extra points for the extra effort.

K9LJB

18032. Soda Pop C31 identifictaion help

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-01 20:04:36 UTC
From: ghwalke@...
Topic: 18032 Message: 18032

Good Day

Managed to find some time to do a bit of work on my Soda Pop.
I was unable to find C31 in the bag of parts and got myself a bit confused on which one with the colour code light blue.
Is it the white packaging coloured blue or black packaging and colour blue?

I will try to upload a pic if that helps.

Thanks
Graeme

18033. Re: [AT_Sprint] QRP on Field Day

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-01 23:59:04 UTC
From: Hank Greeb
Topic: 18028 Message: 18033

Yes, that's been the situation since Field Day started in the 1930's. I should dig out the very first rules of Field Day again one of these daze. But, QRP doesn't necessarily mean low number of contacts. During my stint on 80 meter CW, I made almost as many contacts with 10 watts as the two 100 watt stations.

72/73 de n8xx Hg
QRP >99.44% of the time

On 7/1/2017 1:48 PM, roger.whitaker@... [AT_Sprint] wrote:

If I understand the rules correctly, if even one position at a club station like our 6A operation is 100 watts, then there is no advantage to me running QRP since the only multiplier available is the 2X for running CW with no consideration for power level 100 Watts or below. If I had a multiplier advantage, I would most certainly run QRP CW rather than the 50 Watts or so that I run since I don't get any extra points for the extra effort.

K9LJB

18034. Re: [AT_Sprint] Soda Pop C31 identifictaion help

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-02 01:09:27 UTC
From: Steve Saslow
Topic: 18032 Message: 18034

Graeme! In my SP sn 063 kit, C31 is a 5pF surface mount wee taffy-color rectangular "boxcar", qty=1 in the kit, same size as the other bottom-side-of-the-board cap's (0805). I'm sorry to say, I do not have its carrier anymore, - I built mine in April, but it very likely arrived in the same kind of packaging as the other caps, such as black or dark brown plastic [eek! was there white, too?] with a molded depression to hold the cap', and a clear plastic covering it...

For one such unit, its package may have been so small, could have easily become "buried"/concealed among a few other bits, even, between wires of a coil, for instance...Perhaps, gently separating the pieces, in a soup bowl, may free and reveal it...All the other caps for that section were qty 3 or more...

I hope, -see page 3 of the Instructions!- that you separated all the parts into groups: resistors and inductors...cap's...semiconductors...top side parts...band-specific parts...and so on, to be isolated/stored aside while the groups were installed in the order Steve set out...

GL from Steve S. K7EW Portland OR usa

PS might you have/have access to one of those "smart tweezers" which can/is designed to hold, measure and readout the part's value, be it L, C, or R, to verify what you select?

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of ghwalke@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Saturday, July 1, 2017 1:04 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Soda Pop C31 identifictaion help

Good Day

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I was unable to find C31 in the bag of parts and got myself a bit confused on which one with the colour code light blue.
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Thanks
Graeme

18035. Re: [AT_Sprint] QRP on Field Day

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-02 01:18:28 UTC
From: Dale Putnam
Topic: 18028 Message: 18035

And the insistence to run 100 watts.. by the ssb op... who couldn't make any Qs at 5 watts.. cost us the win.. the year we had a 21E, with all battery power, the cw ops continued with Q pwr.. and made more than enough Qs to make the win.. had the ssb ops stayed at Q pwr.. BUT.. since it isn't a contest.. they had to make the Qs... or not... After the smoke cleared.. and we ran the numbers... it proved it to the cw ops.. what was the way to go.. especially if the SHTF.. and we had to communicate in a real situation.

Funny how that works out.

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

18036. Trick to accessing "Files" section of AT Sprint Group?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-09 07:03:06 UTC
From: wentwest@...
Topic: 18036 Message: 18036

I haven't logged in to this group in a while, and I can't seem to access the Files section. I tried both Safari and Firefox, and logged in to my Yahoo Groups on both, but the Files section appears empty when I click on it. I do see the digest of all conversations, and can access individual threads/conversations, but I can't seem to find the Files. Specifically, I am looking for the manuals for the ATS-4 and MTR 2 band kits. Thanks! Anthony - W6GC

18037. Re: [AT_Sprint] Trick to accessing "Files" section of AT Sprint Group?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-09 08:34:48 UTC
From: Dale Putnam
Topic: 18036 Message: 18037

Make this a great day
Dale

On Jul 9, 2017, at 1:03 AM, wentwest@mac.com<mailto:wentwest@mac.com> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

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18038. Re: [AT_Sprint] Trick to accessing "Files" section of AT Sprint Group?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-09 14:14:52 UTC
From: wentwest@...
Topic: 18036 Message: 18038

Hi Dale,

I'm not sure if you attached anything to your message, but all I see is about 5 or 6 blank lines at the top of your message, followed with your sign off. Basically, your message looks like:

Make this a great day,
Dale

I'm guessing you wrote more than that, or attached something? I can't figure out what's up with my AT Sprint group access.

For what it's worth, I can see and access files in the "Files" section other groups I am a member of.

Anthony - W6GC

18039. Small QRP radios - a "listing" ???

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-14 19:55:24 UTC
From: Mike Olbrisch
Topic: 18039 Message: 18039

Howdy fellow QRPers,

A couple of years ago my wife bought me the monster JEEP of my dreams for my birthday. It has allowed me to go places and climb mountains that were previously not possible in the 1976 DJ-5D I owned previously (photos on my QRZ profile). On one of my JEEP and HAM RADIO expeditions to the Big Bend of Texas I ran in to an older gentleman who saw my antennas and license plates, and he struck up a conversation with me. He was previously an ACTIVE ham, but while his license is still valid he has not been on the air in a long time. He is living out in the wilderness at the Terlingua Ghost Town on his social security check, so money isn't abundantly available for a new radio. And there isn't much else out there for miles and miles.

On longer excursions I always pack along spares for everything. A simple broken wire can end an outing and force a 6-hour drive home with no contacts made. BUMMER! This fellow liked my FT-817ND, but said that much money ($700) wasn't in the budget. Then I showed him my back-up radio, my ATS-4B, and expressed interest in something like it.

So I am kind of looking for a comprehensive guide to small QRP CW radios. I know the AST-3 and the ATS-4 pretty well, I have one of each. But I know little of the MTR series or anything else he might be able to afford. It doesn't need to be only KD1JV radios either, anything that can get him on the air at an affordable price is welcome.

Sooooo... Anyone know of a web page or other resource that gives a good listing of the various small affordable radios? I know there was talk of making up a "History of KD1JV Radios", but I do not recall hearing more than discussion. But it doesn't have to be a KD1JV radio, anything in this type of radio is worth considering.

If I can help him find something that will give him several bands at a price he can afford, perhaps we'll get another ham active, and in an area where there aren't many people, much less hams. In his 70s, I am not sure how much portable he will do, but he did say perhaps "some portable".

I appreciate any leads. Any web sites that describe the little QRP gems? Anyone have a listing of some sort? If he can look it over, perhaps he can pick a few that he might go for, and I can try to scare up a used one for him.

Thanks in advance.

I love the Big Bend region. If you haven't been there, why not? E-mail me privately and I'll send you a few digital photos.

Vy73 - Mike - KD5KC.
El Paso, Texas - DM61rt.
SOTA W5T-Texas Association Manager.
NA-SOTA info is at: http://na-sota.org/

18040. Re: [AT_Sprint] Small QRP radios - a "listing" ???

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-14 23:20:03 UTC
From: Roland Whitsitt
Topic: 18039 Message: 18040

Qrpkits.com has lots of cool kits. I got the two of the first 'Weber tribanders' years ago. Together that covers 6 bands. I'm taking mine to the Philippines next week. They cost $225 apiece for the kit. An easy fun build. They have other kits also. Even single band ssb qrp kits.
One has mtr rigs already built. They had some other cool rigs also but they have been out of stock for awhile.
Couple of interesting Chinese rigs out there through eBay. Very good price and some of them are good performers. Oh. Try youkits.com.
n5vwn
lnrprecision.com/transceivers/sota-stories/.

Sent from my iPhone

> On Jul 14, 2017, at 12:55 PM, 'Mike Olbrisch' mike-2007@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> Howdy fellow QRPers,
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> A couple of years ago my wife bought me the monster JEEP of my dreams for my birthday. It has allowed me to go places and climb mountains that were previously not possible in the 1976 DJ-5D I owned previously (photos on my QRZ profile). On one of my JEEP and HAM RADIO expeditions to the Big Bend of Texas I ran in to an older gentleman who saw my antennas and license plates, and he struck up a conversation with me. He was previously an ACTIVE ham, but while his license is still valid he has not been on the air in a long time. He is living out in the wilderness at the Terlingua Ghost Town on his social security check, so money isn’t abundantly available for a new radio. And there isn't much else out there for miles and miles.
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> On longer excursions I always pack along spares for everything. A simple broken wire can end an outing and force a 6-hour drive home with no contacts made. BUMMER! This fellow liked my FT-817ND, but said that much money ($700) wasn't in the budget. Then I showed him my back-up radio, my ATS-4B, and expressed interest in something like it.
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> Thanks in advance.
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> I love the Big Bend region. If you haven't been there, why not? E-mail me privately and I'll send you a few digital photos.
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18041. RE: [AT_Sprint] Small QRP radios - a "listing" ???

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-14 23:39:58 UTC
From: w4ien
Topic: 18039 Message: 18041

From my experience LNR might not be the best choice. Their support is not the best.

72/73,

EM73vx

Robin

W4IEN

w4ien@...

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Friday, July 14, 2017 19:20
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Small QRP radios - a "listing" ???

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n5vwn

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Thanks in advance.

I love the Big Bend region. If you haven't been there, why not? E-mail me privately and I'll send you a few digital photos.

Vy73 - Mike - KD5KC.

El Paso, Texas - DM61rt.

SOTA W5T-Texas Association Manager.

NA-SOTA info is at: http://na-sota.org/

18042. Re: [AT_Sprint] Small QRP radios - a "listing" ???

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-15 00:50:50 UTC
From: Steve Saslow
Topic: 18039 Message: 18042

I love my KD1JV radios and Elecrafts, and LnR precisions...there definitely imho several quite good and less expensive... MFJ 9000 series, Emtech, as examples, and certainly others/ sadly many discontinued but still fine.. these and many of the first-named often require good antenna tuners/swr indicators ... unless the antennas are correct for the bands wanted, to protect and give good matches to the QRP rigs.
(my age 74, first licensed 1956)
Also look into TenTec, Icom 503...and fellow ham generosity, Kenwoods and others with the power turned 'way down...
Also, watch the NAQCC online market/qrp stuff, often have to act fast!
- Steve K7ew

Sent from my iPhone

On Jul 14, 2017, at 4:20 PM, Roland Whitsitt n5vwn@yahoo.com<mailto:n5vwn@yahoo.com> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

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Sent from my iPhone

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18043. RE: [AT_Sprint] Small QRP radios - a "listing" ???

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-15 04:21:46 UTC
From: Ken Talbott
Topic: 18039 Message: 18043

I hate to be argumentative, but, I have found LNR to be very responsive to inquiries and very generous in interpretation of warranty claims – to include no-charge repair of out-of-warranty gear.

Ken – ke4rg

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Friday, July 14, 2017 7:40 PM
To: AT_Sprint@yahoogroups.com
Subject: RE: [AT_Sprint] Small QRP radios - a "listing" ???

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EM73vx

Robin

W4IEN

w4ien@... <mailto:w4ien@...>

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Sent: Friday, July 14, 2017 19:20
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18044. RE: [AT_Sprint] Small QRP radios - a "listing" ???

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-15 12:30:38 UTC
From: Mike Olbrisch
Topic: 18039 Message: 18044

Thanks Ken.

Very good to know. Like anything I guess, people have various experiences and opinions. Long story short, I had a similar experience with my Yaesu FT-817. I was installing a "mod", and screwed it up. I sent it in to Yaesu with a note explaining what I had been trying to do. It was pretty humorous actually. I was working on the dining room table (my bench was full), and lost an SMD resistor. Looking carefully, I thought I found it. I licked my finger, tapped it on the part, and ran to the big lighted magnifier on the bench. What I had found was a crumb from dinner. The repair tech fixed my screw up, finished the mod, and did it all for no charge. When I asked why no charge since I screwed it up, he said that my note on the situation had him laughing so hard it was worth it.

The fellow in Terlingua Texas has been offered and has purchased an LNR FX-4 at a very good price. Nice to know that the first report of LNR was not the only one.

If you happen to hear K5VA on the QRP freqs sometime, welcome him back on the air. And all this discussion has me wanting to plan another trip into the Big Bend real soon. It is a harsh land on foot, but in my wonderful and completely reliable JEEP, you can absorb the beauty of the land without worrying of the death that awaits the unwary traveler. I would not want to be out there in the summer without supplies and equipment.... and WATER. July and August is pretty hot, but perhaps this fall. There are some nice SOTA summits in the Chisos Mountains.

Vy73 - Mike - KD5KC.
El Paso, Texas - DM61rt.
SOTA W5T-Texas Association Manager.
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From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Friday, July 14, 2017 22:22
To: AT_Sprint@yahoogroups.com
Subject: RE: [AT_Sprint] Small QRP radios - a "listing" ???

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Sent: Friday, July 14, 2017 7:40 PM
To: AT_Sprint@yahoogroups.com
Subject: RE: [AT_Sprint] Small QRP radios - a "listing" ???

From my experience LNR might not be the best choice. Their support is not the best.

72/73,
EM73vx
Robin
W4IEN
w4ien@...

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Friday, July 14, 2017 19:20
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Small QRP radios - a "listing" ???

Qrpkits.com has lots of cool kits. I got the two of the first 'Weber tribanders' years ago. Together that covers 6 bands. I'm taking mine to the Philippines next week. They cost $225 apiece for the kit. An easy fun build. They have other kits also. Even single band ssb qrp kits.
One has mtr rigs already built. They had some other cool rigs also but they have been out of stock for awhile.
Couple of interesting Chinese rigs out there through eBay. Very good price and some of them are good performers. Oh. Try youkits.com.
n5vwn
lnrprecision.com/transceivers/sota-stories/
<https://www.lnrprecision.com/transceivers/sota-stories/> .
Sent from my iPhone

On Jul 14, 2017, at 12:55 PM, 'Mike Olbrisch' mike-2007@... [AT_Sprint]
<AT_Sprint@yahoogroups.com> wrote:

Howdy fellow QRPers,

A couple of years ago my wife bought me the monster JEEP of my dreams for my birthday. It has allowed me to go places and climb mountains that were previously not possible in the 1976 DJ-5D I owned previously (photos on my QRZ profile). On one of my JEEP and HAM RADIO expeditions to the Big Bend of Texas I ran in to an older gentleman who saw my antennas and license plates, and he struck up a conversation with me. He was previously an ACTIVE ham, but while his license is still valid he has not been on the air in a long time. He is living out in the wilderness at the Terlingua Ghost Town on his social security check, so money isn’t abundantly available for a new radio. And there isn't much else out there for miles and miles.

On longer excursions I always pack along spares for everything. A simple broken wire can end an outing and force a 6-hour drive home with no contacts made. BUMMER! This fellow liked my FT-817ND, but said that much money ($700) wasn't in the budget. Then I showed him my back-up radio, my ATS-4B, and expressed interest in something like it.

So I am kind of looking for a comprehensive guide to small QRP CW radios. I know the AST-3 and the ATS-4 pretty well, I have one of each. But I know little of the MTR series or anything else he might be able to afford. It doesn't need to be only KD1JV radios either, anything that can get him on the air at an affordable price is welcome.

Sooooo... Anyone know of a web page or other resource that gives a good listing of the various small affordable radios? I know there was talk of making up a “History of KD1JV Radios”, but I do not recall hearing more than discussion. But it doesn’t have to be a KD1JV radio, anything in this type of radio is worth considering.

If I can help him find something that will give him several bands at a price he can afford, perhaps we'll get another ham active, and in an area where there aren't many people, much less hams. In his 70s, I am not sure how much portable he will do, but he did say perhaps "some portable".

I appreciate any leads. Any web sites that describe the little QRP gems? Anyone have a listing of some sort? If he can look it over, perhaps he can pick a few that he might go for, and I can try to scare up a used one for him.

Thanks in advance.

I love the Big Bend region. If you haven't been there, why not? E-mail me privately and I'll send you a few digital photos.

Vy73 - Mike - KD5KC.
El Paso, Texas - DM61rt.
SOTA W5T-Texas Association Manager.
NA-SOTA info is at: http://na-sota.org/

18045. RE: [AT_Sprint] Small QRP radios - a "listing" ???

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-15 12:38:19 UTC
From: roger.whitaker@...
Topic: 18039 Message: 18045

I will also chime in regarding LNR and support. I found it to be very good when I had questions about my MTR5B earlier this year. I ended up having a dialog with Steve Weber himself. The questions got resolved without sending in the radio.

73 K9LJB

18046. SodaPop #25 First QSO

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-15 16:29:58 UTC
From: colinweaving@...
Topic: 18046 Message: 18046

For a few weeks I had been struggling to improve the "sensitivity" of my SodaPop. From the very start the TX was working fine getting similar Reverse Beacon reports as my K3.

However S7 sigs on the K3 were only just readable on the SodaPop.

There were a few other similar reports so I assumed mine was the same issue. Not so, I am afraid. After a few weeks of chasing my tail and following others experience, I was still with a deaf receiver. After a 2 week break and a fresh approach. I found a cold solar joint in the crystal filter. Fixed - job done.

Today, went /P to a quiet location and my very first CQ was answered by a Russian station RW3DF. We exchanged 339, but after 5 minutes QSB won. I then had a fairly long QSO with IZ3SOI.

There is some lessons to be learnt here, not the least is that I do not solder as good as I thought !!

Thanks Steve. Another successful rig which I look forward to operating this summer.

Colin M3WCK

18047. Re: [AT_Sprint] Small QRP radios - a "listing" ???

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-15 20:56:28 UTC
From: James Shipley
Topic: 18039 Message: 18047

You might look at Oz QRP (http://www.ozqrp.com/index.html). Their MST3 kit has multiple band modules and the price is very reasonable. Leon, to proprietor, has been very helpful in my experience.

73,

James

On Jul 14, 2017 4:26 PM, "'Mike Olbrisch' mike-2007@... [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:

Howdy fellow QRPers,

A couple of years ago my wife bought me the monster JEEP of my dreams for my birthday. It has allowed me to go places and climb mountains that were previously not possible in the 1976 DJ-5D I owned previously (photos on my QRZ profile). On one of my JEEP and HAM RADIO expeditions to the Big Bend of Texas I ran in to an older gentleman who saw my antennas and license plates, and he struck up a conversation with me. He was previously an ACTIVE ham, but while his license is still valid he has not been on the air in a long time. He is living out in the wilderness at the Terlingua Ghost Town on his social security check, so money isn’t abundantly available for a new radio. And there isn't much else out there for miles and miles.

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So I am kind of looking for a comprehensive guide to small QRP CW radios. I know the AST-3 and the ATS-4 pretty well, I have one of each. But I know little of the MTR series or anything else he might be able to afford. It doesn't need to be only KD1JV radios either, anything that can get him on the air at an affordable price is welcome.

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I appreciate any leads. Any web sites that describe the little QRP gems? Anyone
have a listing of some sort? If he can look it over, perhaps he can pick a few that he might go for, and I can try to scare up a used one for him.

Thanks in advance.

I love the Big Bend region. If you haven't been there, why not? E-mail me privately and I'll send you a few digital photos.

Vy73 - Mike - KD5KC.

El Paso, Texas - DM61rt.

SOTA W5T-Texas Association Manager.

NA-SOTA info is at: http://na-sota.org/

18048. FS: MTR 5B and unbuilt SODA POP

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-17 00:58:59 UTC
From: Anthony DeStefano
Topic: 18048 Message: 18048

Time for summer cleaning. I wanted to give this group the first crack at the following:
1 x unbuilt SODA POP kit still in the packaging. $105 shipped

1 x MTB 5B. This is built and in the LNR case that was designed and made *before* LNR started to build their own version of the MTR rigs. Everything is fine, but I find the sidetone on sending to be ear piercing. The updated oscillator and the latest firmware are also installed. $250 shipped.
If you want them both we can make a deal. Payment is via PayPal and I'll ship USPS.
WR3T

--
Anthony DeStefano
adx@...

18049. Re: SodaPop #25 First QSO

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-18 12:34:12 UTC
From: simon.jack68@...
Topic: 18046 Message: 18049

I had a similar experience. Lots of frustration and a cold solder joint. Good to hear its up and running. Always very satisfying to get a circuit working after it doesn't first up and amazing how often the fix is found shortly after a break.

Regards

Simon
VK3ELH

18050. MTR5B Battery Voltage Indicator Modification for Step-Up Converter

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-18 07:41:52 UTC
From: mfhepp@...
Topic: 18050 Message: 18050
Attachments: 1 described; binary payloads are missing from this source WARC

Dear all:
I want to use my MTR5B with a DC/DC Step-up converter in order to get 12 V from 4,8 V NimH batteries. This concept has proven to work like a charm with my MTR3B. For the MTR 3B, I used an external undervoltage warning with a Zener diode etc. that indicates when the batteries are getting low.

Now, for my MTR 5B, I want to use the internal battery voltage mechanism, which seems to be based on the ADC of the MCU.

If I understand the schematics correctly, all I would need to do is desoldering R22 and connecting the pin that leads to R27 via an external 100k resistor directly to the battery.

By that modification, I should be able to measure the raw battery voltage before the step-up converter.

Is there anything I have not considered?

Should I add another .1uF capacitor to the new 100k resistor in order to suppress RF on the ADC?

Thanks for any hints.

Attached is a part of the MTR5B schematics.

73 de Martin, DK3IT

18051. MTR3B All-in-One Go Box

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-18 08:02:16 UTC
From: mfhepp@...
Topic: 18051 Message: 18051
Attachments: 3 described; binary payloads are missing from this source WARC

Dear all:
For quite a while, I have been trying to work on a light and quick-to-setup station based in my MTR3B, mainly for SOTA, with following goals in mind:

1. Lightweight and compact (that is clear).

2. Rapid setup: In the beginning, I tried packing an MTR with all kind of stuff in bags, which was compact and lightweight. But it takes a lot of time to unwind and connect everything; parts can be lost, and it is a pain to use many distinct parts e.g. in 50 cm of fresh snow. Also, I often have very limited time on the summit, so loosing 10 minutes to unpack my rig is problematic.
3. Sturdy and watertight: I want to be able to squeeze my gear into a full backpack with crampons, carabiners, etc. in a hurry without fearing to break the key or other parts. The MTRs slide switches are e.g. easy to damage. Also, at least when stowed away, rain and some snow should not harm.

Inspired by the GoBox concept by Tom, OE2ATN, for the KX2, see https://www.oe2atn.at/tom/kx2-gobox-2016/, I designed a similar station based on the MTR3B, with the following components:

Mountain Topper MTR 3B, gives 40-30-20m, which is all I need, removed from its metal case
Pelican 1040 case, http://www.peli.com/eu/en/product/watertight-protector-hard-cases/micro-case/standard/1040/9
4.8V 4 x AA Nimh battery pack; fully sufficient capacity for several hours, much less risk than Li-based batteries
Two step-up converters that generate 6 and 12 V DC from the battery, 12V for full 5W and 6V for 1 W for tuning and QRPP
Simply battery voltage monitor with two LEDs, a zener diode and a transistor - green LED shows sufficient voltage to not overload the step-up-converters (their input current increases as the input voltage drops), red LED shows undervoltage so that you can stop before the Nimh batteries get damaged. I decided against an automatic turn-off circuit, because I want to be in control to finish a QSO.
SWR meter (rather: indicator, hi) and power indicator with LEDs, based on the design by DF3OS, see http://www.sp5jnw.sem.pl/konstrukcje/atudf3oshtm/atudf3oseng.pdf1
Volume control (simple 1k micro potentiometer) to adjust headset and speaker volume
LM386 amplifier and tiny control monitor, so that I can be away a few feet from the radio, e.g. during CQ loops
Palm Pico Single key, mounted with magnets on the bottom that allow easy stow away and various angles for operating.
All components are mounted on a front panel designed as a 3D print part. I will later replace that by a laser-cut aluminum one but wanted to test the concept first.

The front panel includes a few metal washers so that a Palm Pico Single key can be mounted in various angles via its magnets and can be retracted during transport.
The charging of the NimH batteries is done by an external plug-in power supply

(https://www.amazon.de/dp/B016WEOMN8/ https://www.amazon.de/dp/B016WEOMN8/) that supports 1 A current and includes all circuitry for intelligent charging.
For longer activations, external batteries can be plugged in via the same DC connector.

I am very, very happy with this setup. I can be QRV within 15 seconds + antenna set-up; you cannot loose any part, and the complete station without antenna is just 559 grams. The batteries allow for many hours of operation with full 5W.

The next project is a similar station on the basis of the MTR5B, mainly because of the VFO display and the option for a rotary encoder (and 17m).

Attached, please find a few pictures. I will be happy to share the 3D files if anyone is interested.

73 de Martin, DK3IT

18052. MTR5B Rev 3: Measure Battery Voltage before Step-up Converter

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-18 08:11:58 UTC
From: mfhepp@...
Topic: 18052 Message: 18052
Attachments: 1 described; binary payloads are missing from this source WARC

Dear all:
I want to use my MTR5B with a DC/DC Step-up converter in order to get 12 V from 4,8 V NimH batteries. This concept has proven to work like a charm with my MTR3B. For the MTR 3B, I used an external undervoltage warning with a Zener diode etc. that indicates when the batteries are getting low.

Now, for my MTR 5B, I want to use the internal battery voltage mechanism, which seems to be based on the ADC of the MCU.

If I understand the schematics correctly, all I would need to do is desoldering R22 and connecting the pin that leads to R27 via an external 100k resistor directly to the battery.

By that modification, I should be able to measure the raw battery voltage before the step-up converter.

Is there anything I have not considered?

Should I add another .1uF capacitor to the new 100k resistor in order to suppress RF on the ADC?

Thanks for any hints.

Attached is a part of the MTR5B schematics.
73 de Martin, DK3IT

18053. Re: [AT_Sprint] MTR3B All-in-One Go Box [3 Attachments]

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-18 14:47:33 UTC
From: Sean Waite
Topic: 18051 Message: 18053

For those who have a QST subscription or an ARRL membership and can access
the archives, Alan Shapiro NM5S has a similar build in the May 2016 issue.

Sean WA1TE

On Tue, Jul 18, 2017, 09:27 mfhepp@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
> [Attachment(s) <#m_-2625358431772762937_TopText> from mfhepp@...
> [AT_Sprint] included below]
>
> Dear all:
>
> For quite a while, I have been trying to work on a light and
> quick-to-setup station based in my MTR3B, mainly for SOTA, with following
> goals in mind:
>
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> 1. *Lightweight and compact* (that is clear).
>
> 2. *Rapid setup:* In the beginning, I tried packing an MTR with all kind
> of stuff in bags, which was compact and lightweight. But it takes a lot of
> time to unwind and connect everything; parts can be lost, and it is a pain
> to use many distinct parts e.g. in 50 cm of fresh snow. Also, I often have
> very limited time on the summit, so loosing 10 minutes to unpack my rig is
> problematic.
> 3. *Sturdy and watertight:* I want to be able to squeeze my gear into a
> full backpack with crampons, carabiners, etc. in a hurry without fearing to
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> - Mountain Topper MTR 3B, gives 40-30-20m, which is all I need,
> removed from its metal case
> - Pelican 1040 case,
> http://www.peli.com/eu/en/product/watertight-protector-hard-cases/micro-case/standard/10
40/9
> - 4.8V 4 x AA Nimh battery pack; fully sufficient capacity for several
> hours, much less risk than Li-based batteries

> - Two step-up converters that generate 6 and 12 V DC from the battery,
> 12V for full 5W and 6V for 1 W for tuning and QRPP
> - Simply battery voltage monitor with two LEDs, a zener diode and a
> transistor - green LED shows sufficient voltage to not overload the
> step-up-converters (their input current increases as the input voltage
> drops), red LED shows undervoltage so that you can stop before the Nimh
> batteries get damaged. I decided against an automatic turn-off circuit,
> because I want to be in control to finish a QSO.
> - SWR meter (rather: indicator, hi) and power indicator with LEDs,
> based on the design by DF3OS, see
> http://www.sp5jnw.sem.pl/konstrukcje/atudf3oshtm/atudf3oseng.pdf1
> - Volume control (simple 1k micro potentiometer) to adjust headset and
> speaker volume
> - LM386 amplifier and tiny control monitor, so that I can be away a
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>
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> and includes all circuitry for intelligent charging.
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> For longer activations, external batteries can be plugged in via the same
> DC connector.
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> antenna is just 559 grams. The batteries allow for many hours of operation
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> The next project is a similar station on the basis of the MTR5B, mainly
> because of the VFO display and the option for a rotary encoder (and 17m).
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> Attached, please find a few pictures. I will be happy to share the 3D
> files if anyone is interested.
>
>
> 73 de Martin, DK3IT

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>
>
>

18054. NAQCC July Sprint this Wednesday Evening

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-18 23:54:34 UTC
From: Larry W2LJ
Topic: 17002 Message: 18054

The July NAQCC sprint is this coming Wednesday evening local time (July 19th, EDT - 8:30-10:30PM, CDT - 7:30-9:30PM, MDT - 6:30-8:30PM, PDT - 5:30-7:30PM), which translates as Thursday, July 20th, 0030 to 0230Z in all cases.

For all the "official" information, please go to:

http://naqcc.info/sprint/sprint201707.html

There you will find all the details as to time, frequencies and other important information.

Certificates: SWA (simple wire antennas) certificates by call area, VE and DX for 1st, 2nd and 3rd place finishers (New!). A Certificate for top score in the GAIN antenna category.

Prizes: Too many to list!! - check out the prizes page on our website.

This is a monthly event that caters to the CW veteran, the CW newcomer, straight key and bug fans. All are welcome to participate (this includes QRO); but you must use QRP power levels to compete for awards.

If you've been hesitant to join in our sprints because you hear other sprints running at breakneck speeds, have no fear. Our sprints are geared to the newcomer to CW and/or contesting. Virtually everyone including the many veteran contesters who regularly enter our sprints will slow down to YOUR speed to help you make your contacts.

If you are not already a member of NAQCC... membership is FREE! Now is your chance to join the largest QRP CW Club in the world!! We currently have 7100+ members in: All 50 States - 9 VE Provinces - 100 Countries. Sign up on the NAQCC website today (http://naqcc.info/) and receive a handsome certificate, with your membership number on it, which is good for life.

Come join us and have a real good time!

72/73 de Larry W2LJ
NAQCC #35

for NAQCC
http://naqcc.info/

18055. Re: MTR5B Rev 3: Measure Battery Voltage before Step-up Converter

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-19 13:01:28 UTC
From: mfhepp@...
Topic: 18052 Message: 18055

FYI:

Alexey, UT0UM pointed out that this will disable the MTRs protection circuit that reduces RF power when the battery voltage is above 10 Volts or so. While this is no problem in general, because my design offers to set the power to 1 W by reducing the voltage to 6 V, it introduces a significant additional risk for users.

Also, one would have to disable the MTRs power switch because the rig must be turned on whenever voltage is applied to the ADC (otherwise you are out of spec).

So I will probably stick with my old design with a dedicated circuit for indicating low voltage.

Martin, DK3IT

18056. Re: [AT_Sprint] MTR3B All-in-One Go Box [3 Attachments]

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-19 12:57:26 UTC
From: Martin Hepp
Topic: 18051 Message: 18056

Hi Sean,

is there any publicly available information (images, description) available on the Web?

I took inspiration from the following works:

- Station by John DePrimo, K1JD: https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxrMWpkc290YXN0YXRpb25ldm9sdXRpb258Z3g6MmZjNWNiNWM0ODJlZGZiZg
- Station by Rob, W3DX, https://beta.groups.yahoo.com/neo/groups/AT_Sprint/conversations/messages/16812

But I wanted to further and added SWR meter + power indicator, step-up converter for 1 and 5 W, control monitor, volume control, and undervoltag warning all into a single GoBox for rapid deployment.

Martin, DK3IT

18057. My latest 20,30,40m antenna idea

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-21 15:26:54 UTC
From: Joe Street
Topic: 18057 Message: 18057

Since I've injured my back and found myself with time to lie down and ponder....my mind inevitably wandered to the question of a different portable antenna. What I came up with was a simple wire half a wavelength long for 40 meters arranged so that it is bent in the middle with one half going vertical and the other parallel to the ground, like an upright L rather than the so common inverted L type. I didn't find much info on the upright L antenna but what I did find in every case involved feeding it at the corner so it looks like a bent dipole or 1/4 wave vertical with one radial. Then I decided to see what would happen by driving the end of the radial rather than feeding in the corner. The model shows that this lowers the impedance from that of a typical EFHW of say 3-4kohm down to about 1000 ohms. Actually on 20m it looks more like 800 ohms and on 40m like 1200 ohms. Interestingly on 30m it offers an impedance much closer to 50 ohms. I was considering using an MFJ 16010 variable L network for matching and feeding the antenna. As a result of the low impedance feedpoint on 30m I guessed that it would require a good ground or at least a counterpoise, so I added a wire running below the "radial" portion of the antenna to see what that would do to both the impedances and radiation patterns. It didn't make a dramatic change and because there will be good coupling between the horizontal part of the radiator and the counterpoise running below it, I expect the tuner will be able to do a good job of coupling energy into the wire and I hope allow it to be reasonably efficient even over poor ground, but this is where my knowledge is a little sketchy.

The radiation patterns are also interesting. On 40m there is a definite front/back ratio of about 5db favoring the direction from which the radial is fed. Takeoff is around 20 degrees. On 30m it is pretty omnidirectional in azimuth but the radiation is flattened and again favours about 20-25 deg elevation in all directions. On 20m there is still the predominant squashed omni look but starting to be a little more energy coming off 70 degrees either side of the back of the antenna (opposite the feedpoint) and there is getting to be a bit of high angle as well which could be useful if desired for closer in contacts.

There are some aspects of this latest idea that really appeal to me. It is a three band antenna that only requires a single support of ~11-12m in height. It is a simple piece of wire with no traps or links and band switching can be a quick and easy affair from the operating position. It allows some choice in orientation of signals especially on 40m. It is a reasonably low angle radiator that doesn't require a long feedline with it's associated weight/loss tradeoffs. It does require a tuner but that can be relatively small and compact and still quite efficient if it is made correctly. The tuner losses are quite low at the impedances it will be asked to match. The fed end of the antenna can be anywhere on a 10m radius from the support point for the vertical portion and is close to the

ground and can be routed into a tent for operation away from biting insects. Since the weight and bulk of a feedline is eliminated it leaves room for a small tuner and that allows a good match regardless of variations in how the antenna gets deployed from one setup to the next which I've found can be a problem sometimes with other designs I've tried.

I'm not super experienced with antenna modeling and I feel like this is all too good to be true. There must be a gotcha somewhere that I have overlooked. I've tried changing ground types and haven't noticed any big problems. So I turn it over to those with more knowledge than myself to pick this apart. If anyone wants the EZNEC files for this idea just let me know but it is simply a wire running from 11.1m straight down to 1.1m above ground and then turning and running to a point 10m away and 0.1m above ground where there is a 0.1m segment connecting the end to ground with the source in the middle of it. The counterpoise runs from the ground connection at the feed point to a point below the base of the vertical section where it ends 0.5m above ground.

I've managed to cut some wire and get stuff ready for some field tests but until my disc heals up I can't see me getting anything up in the air for a while yet.

Joe

18058. Re: [AT_Sprint] My latest 20,30,40m antenna idea

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-21 15:54:26 UTC
From: Neil Martinsen-Burrell
Topic: 18057 Message: 18058

Steve Hunt G3TXQ and Tom Rauch W8JI taught us to think about where the current maximum is located because that is where most of the radiation is coming from. With your "upright-L" end-fed half-wave wire on 40 meters, the current maximum is in the middle at the corner of the L where it is close to the lossy ground. Radiation-wise (although possibly not impedance-wise) this will be less efficient than a configuration where the current maximum is higher off the ground. You should be able to build a corresponding EZNEC model of the inverted-L configuration where the current maximum is at the top and you can compare the gain results of the two configurations.

Steve always encouraged inverted-vee half-wave dipoles for portable operations where a single tall support is available to put the point of maximum radiation as high as possible. If you can handle the trade-off of carrying a feed-line separate from the antenna element, I think that it is hard to argue against the classic choice. If you don't want to bring a separate feedline, then end-feeding the half-wave wire in inverted vee configuration might still be the best choice. As you found, this gets you the second harmonic band as well. For absolutely minimal operations on 20/40, 66 feet of wire with the middle over a tree branch is my personal favorite.

For 30 meters, the end is a low-impedance point as you calculated and ground losses are a substantial concern. In your EZNEC model, you should make sure to compare the results with different ground settings to see the effect of lossy ground on antenna gain and pattern. You may find that even a small number of short radials could improve efficiency drastically. The previous point about locating the current maximum as high as possible still stands as well.

-Neil N0FN

On Fri, Jul 21, 2017 at 10:26 AM, Joe Street racingtheclouds@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Since I've injured my back and found myself with time to lie down and
> ponder....my mind inevitably wandered to the question of a different
> portable antenna. What I came up with was a simple wire half a wavelength
> long for 40 meters arranged so that it is bent in the middle with one half
> going vertical and the other parallel to the ground, like an upright L
> rather than the so common inverted L type. I didn't find much info on the
> upright L antenna but what I did find in every case involved feeding it at
> the corner so it looks like a bent dipole or 1/4 wave vertical with one
> radial. Then I decided to see what would happen by driving the end of the
> radial rather than feeding in the corner. The model shows that this lowers

> the impedance from that of a typical EFHW of say 3-4kohm down to about 1000
> ohms. Actually on 20m it looks more like 800 ohms and on 40m like 1200
> ohms. Interestingly on 30m it offers an impedance much closer to 50 ohms.
> I was considering using an MFJ 16010 variable L network for matching and
> feeding the antenna. As a result of the low impedance feedpoint on 30m I
> guessed that it would require a good ground or at least a counterpoise, so
> I added a wire running below the "radial" portion of the antenna to see
> what that would do to both the impedances and radiation patterns. It didn't
> make a dramatic change and because there will be good coupling between the
> horizontal part of the radiator and the counterpoise running below it, I
> expect the tuner will be able to do a good job of coupling energy into the
> wire and I hope allow it to be reasonably efficient even over poor ground,
> but this is where my knowledge is a little sketchy.
>
> The radiation patterns are also interesting. On 40m there is a definite
> front/back ratio of about 5db favoring the direction from which the radial
> is fed. Takeoff is around 20 degrees. On 30m it is pretty omnidirectional
> in azimuth but the radiation is flattened and again favours about 20-25 deg
> elevation in all directions. On 20m there is still the predominant
> squashed omni look but starting to be a little more energy coming off 70
> degrees either side of the back of the antenna (opposite the feedpoint) and
> there is getting to be a bit of high angle as well which could be useful if
> desired for closer in contacts.
>
> There are some aspects of this latest idea that really appeal to me. It
> is a three band antenna that only requires a single support of ~11-12m in
> height. It is a simple piece of wire with no traps or links and band
> switching can be a quick and easy affair from the operating position. It
> allows some choice in orientation of signals especially on 40m. It is a
> reasonably low angle radiator that doesn't require a long feedline with
> it's associated weight/loss tradeoffs. It does require a tuner but that
> can be relatively small and compact and still quite efficient if it is made
> correctly. The tuner losses are quite low at the impedances it will be
> asked to match. The fed end of the antenna can be anywhere on a 10m
> radius from the support point for the vertical portion and is close to the
> ground and can be routed into a tent for operation away from biting
> insects. Since the weight and bulk of a feedline is eliminated it leaves
> room for a small tuner and that allows a good match regardless of
> variations in how the antenna gets deployed from one setup to the next
> which I've found can be a problem sometimes with other designs I've tried.
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> I'm not super experienced with antenna modeling and I feel like this is
> all too good to be true. There must be a gotcha somewhere that I have
> overlooked. I've tried changing ground types and haven't noticed any big
> problems. So I turn it over to those with more knowledge than myself to
> pick this apart. If anyone wants the EZNEC files for this idea just let me
> know but it is simply a wire running from 11.1m straight down to 1.1m above
> ground and then turning and running to a point 10m away and 0.1m above
> ground where there is a 0.1m segment connecting the end to ground with the
> source in the middle of it. The counterpoise runs from the ground

> connection at the feed point to a point below the base of the vertical
> section where it ends 0.5m above ground.
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> I've managed to cut some wire and get stuff ready for some field tests but
> until my disc heals up I can't see me getting anything up in the air for a
> while yet.
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> Joe
>
>
>

18059. Re: [AT_Sprint] My latest 20,30,40m antenna idea

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-21 17:06:11 UTC
From: Joe Street
Topic: 18057 Message: 18059

Hi Neil

Yes as you pointed out changing the loss character of the ground has a substantial impact on the 30m band which is why I tried adding the counterpoise wire. On 20 and 40 the effect seems much less.

On Fri, Jul 21, 2017 at 11:54 AM, Neil Martinsen-Burrell neilmartinsenburrell@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Steve Hunt G3TXQ and Tom Rauch W8JI taught us to think about where the
> current maximum is located because that is where most of the radiation is
> coming from. With your "upright-L" end-fed half-wave wire on 40 meters, the
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>> Joe
>>
>>
>
>

18060. ats-3b kits

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-22 00:26:49 UTC
From: ki8as@...
Topic: 18060 Message: 18060

Just wondering if there are any ATS-3b Kits available.

Thanks

Tom C
KI8AS

18061. MBDC band conversion questions

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-22 04:43:56 UTC
From: johnroland51@...
Topic: 18061 Message: 18061

I still enjoy my MBDC on 80 meters but don't think I have ever made a contact on 160 so am thinking I would like to convert the 160 meter band to 40. The Rev1 version of the manual has me confused about which band is A and B. There is a highlighted statement on page 7 saying that the bands were reversed with the updated chip, but perhaps the remainder of the manual was not updated to reflect the change. I am pretty sure I got the updated chip, but don't remember how to tell. Regardless I wanted to confirm that if I replace the 160 meter filter with values for 40 meters, should I then program band B for 40 meters, keeping band A as 80meters? Thanks for the help. /John W7SWB

18062. Re: My latest 20,30,40m antenna idea

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-22 17:43:02 UTC
From: jddavidson72@...
Topic: 18057 Message: 18062

sri. to hear you are down om. i have been trying to get an all in one ant. to work with my mtr3 thought i had it figured out . just got a elecraft t1 tuner have you ever tried one on an end long wire? not sure its going to do the job. the darn thing says to hook it to a ground don't understand its not always easy to drive one in the ground hi hi .think my main problem is i am not trusting these darn leds. any how thought mabe u or some one has tried one of these SMALL t 1 tuners .73 jim KC0DD PS . ANTS. HAVE TRIED 84 FT. 33FT 55 FT. 30M HAS BEEN THE HARD ONE

18063. Re: My latest 20,30,40m antenna idea

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-22 17:46:17 UTC
From: jddavidson72@...
Topic: 18057 Message: 18063

NEIL ground meaning counter poise is that what i am understanding . not the sharpest knife in the drawer here hi hi jim davidson kc0dd

18064. posting

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-22 18:16:07 UTC
From: jddavidson72@...
Topic: 18064 Message: 18064

been a member for a long time why can,t i post jim davidson kc0dd

18065. Re: [AT_Sprint] posting

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-22 19:13:21 UTC
From: Hank Greeb
Topic: 18064 Message: 18065

KCØDD de n8xx:

you made it to the group. 5NN OM, Wall to Wall and Treetop Tall!

If you don't see this reply, it may be something which yahoo.com is doing. I hear they've been screwing around with mail.

72/73 de n8xx Hg
QRP >99.44% of the time

On 7/22/2017 2:16 PM, jddavidson72@... [AT_Sprint] wrote:

> been a member for a long time why can,t i post jim davidson kc0dd

18066. Re: [AT_Sprint] Re: My latest 20,30,40m antenna idea

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-22 20:42:31 UTC
From: Joe Street
Topic: 18057 Message: 18066
Attachments: 1 described; binary payloads are missing from this source WARC

Thanks for the kindness. No I haven't tried the K1 but it looks like a nice tuner. If you use the antenna I modelled you can connect the ground on the tuner to the counterpoise wire. Has anyone else looked at this idea in eznec? I'll try to attach the file but I don't know if it will get scrubbed from the email.

Joe

On Sat, Jul 22, 2017 at 1:43 PM, jddavidson72@yahoo.com [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> sri. to hear you are down om. i have been trying to get an all in one
> ant. to work with my mtr3 thought i had it figured out . just got a
> elecraft t1 tuner have you ever tried one on an end long wire? not sure
> its going to do the job. the darn thing says to hook it to a ground don't
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> or some one has tried one of these SMALL t 1 tuners .73 jim KC0DD
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> PS . ANTS. HAVE TRIED 84 FT. 33FT 55 FT. 30M HAS BEEN THE HARD ONE
>
>

18067. Re: [AT_Sprint] Re: My latest 20,30,40m antenna idea

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-22 20:49:36 UTC
From: Joe Street
Topic: 18057 Message: 18067
Attachments: 1 described; binary payloads are missing from this source WARC

oops I just realized I attached the wrong file on my last. This one is the right one using real high accuracy ground and has the counterpoise isolated from ground.

On Sat, Jul 22, 2017 at 4:42 PM, Joe Street <racingtheclouds@...> wrote:

> Thanks for the kindness. No I haven't tried the K1 but it looks like a
> nice tuner. If you use the antenna I modelled you can connect the ground on
> the tuner to the counterpoise wire. Has anyone else looked at this idea in
> eznec? I'll try to attach the file but I don't know if it will get
> scrubbed from the email.
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> Joe
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> On Sat, Jul 22, 2017 at 1:43 PM, jddavidson72@... [AT_Sprint] <
> AT_Sprint@yahoogroups.com> wrote:
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18068. Re: [AT_Sprint] Re: My latest 20,30,40m antenna idea

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-22 23:19:17 UTC
From: Dale Putnam
Topic: 18057 Message: 18068

The T1 ground will be happy when it has a ground attached. I have had good results with a quarter wavelength ground wire attached. One for each band. Tossed out sorta in a straight away direction.

Make this a great day
Dale

On Jul 22, 2017, at 1:03 PM, jddavidson72@yahoo.com<mailto:jddavidson72@yahoo.com> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

NEIL ground meaning counter poise is that what i am understanding . not the sharpest knife in the drawer here hi hi jim davidson kc0dd

18069. MTR5B (LNR) sidetone volume

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-24 09:02:01 UTC
From: heinz.baertschi@...
Topic: 18069 Message: 18069

A side-by-side comparison of the sidetone volumes with the MTR5B (LNR) and several MTR3B (LNR) shows that the volume on the MTR5B is significantly higher and is thus clearly in the unpleasant range.

Curious: The relevant circuit is exactly the same for both models, except that R16 (22k) on the MTR5B is connected to +5V and R8 (22k) on the MTR3B to +3.3V. Can this explain the big difference?

Has anyone changed the sidetone volume on the MTR5B and if so, how (component values) and with what result?

18070. Re: [AT_Sprint] MTR5B (LNR) sidetone volume

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-24 10:04:11 UTC
From: Colin Tuckley
Topic: 18069 Message: 18070

On 24/07/17 10:02, heinz wrote:

> A side-by-side comparison of the sidetone volumes with the MTR5B (LNR)
> and several MTR3B (LNR) shows that the volume on the MTR5B is
> significantly higher and is thus *clearly* in the unpleasant range.
>
> Curious: The relevant circuit is exactly the same for both models,
> except that R16 (22k) on the MTR5B is connected to +5V and R8 (22k) on
> the MTR3B to +3.3V. Can this explain the big difference?

Yes, that almost certainly explains the difference, assuming that the
value of R15 (113k) on the MTR3B schematic is actually a typo for 133k.

R16 and R26 (R8 and R20) effectively form a potential divider I think.

> Has anyone changed the sidetone volume on the MTR5B and if so, how
> (component values) and with what result?

I would be inclined to change R16 from 22k to 33k and see how much
difference it makes.

73, Colin G8TMV

--
Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
Debian Developer | +44(0)7799 143369 | 0xFA0C410738C9D903

18072. Re: MTR5B (LNR) sidetone volume

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-24 12:46:49 UTC
From: heinz.baertschi@...
Topic: 18069 Message: 18072

The typo (133k) is in fact on the MTR5B manual (rev. 12-12-15) only.

So I will invest some time to find a way to mount an SMD trimmer pot at R16, which could then also be applied to the MTR3B (because the Hearing of different users is very different).

It would be interesting to hear also the opinion/suggestion by Steve @kd1jv.

18073. Re: [AT_Sprint] Re: MTR5B (LNR) sidetone volume

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-24 22:34:29 UTC
From: Anthony DeStefano
Topic: 18069 Message: 18073

Is your sidetone always blaringly loud or only during keying? My sidetone volume on band switching is fine, but on keying it's so loud you can't put on the headphones. Every month or two I pull mine off the shelf and mess with it for a bit, but still haven't tracked it down yet. I'm sure it's a bad connection somewhere in the keying or PA circuits, but I tracked it down yet.
-A

--
Anthony DeStefano
adx@...

On Mon, Jul 24, 2017, at 08:46 AM, heinz.baertschi@... [AT_Sprint] wrote:>
>

> The typo (133k) is in fact on the MTR5B manual (rev. 12-12-15) only.
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Links:

1. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/messages/18072;_ylc=X3oDMTJyYmIybnBvBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxODA3MgRzZWMDZnRyBHNsawNycGx5BHN0aW1lAzE1MDA5MDA0MTA-?act=reply&messageNum=18072
2. mailto:heinz.baertschi@...?subject=Re%3A%20MTR5B%20%28LNR%-29%20sidetone%20volume
3. mailto:AT_Sprint@yahoogroups.com?subject=Re%3A%20MTR5B%20%28LNR%2-9%20sidetone%20volume
4. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/newtopic;_ylc=X3oDMTJma3Vla2FtBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDZnRyBHNsawNudHBjBHN0aW1lAzE1MDA5MDA0MTA-
5. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/topics/18069;_ylc=X3oDMTM3ajQ5Zm1yBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxODA3MgRzZWMDZnRyBHNsawN2dHBjBHN0aW1lAzE1MDA5MDA0MTAEdHBjSWQDMTgwNjk-
6. https://yho.com/1wwmgg
7. https://groups.yahoo.com/neo/groups/AT_Sprint/info;_ylc=X3oDMTJmNmg5ZW85BF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2Z2hwBHN0aW1lAzE1MDA5MDA0MTA-
8. https://groups.yahoo.com/neo/groups/AT_Sprint/members/all;_ylc=X3oDMTJnY3RqaDJkBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2bWJycwRzdGltZQMxNTAwOTAwNDEw
9. https://info.yahoo.com/privacy/us/yahoo/groups/details.html

10. mailto:AT_Sprint-unsubscribe@yahoogroups.com?subject=Unsubscribe
11. https://info.yahoo.com/legal/us/yahoo/utos/terms/

18074. Re: [AT_Sprint] Re: MTR5B (LNR) sidetone volume

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-25 13:06:54 UTC
From: Joe Street
Topic: 18069 Message: 18074

Did you check the mute circuit?

On Mon, Jul 24, 2017 at 6:34 PM, Anthony DeStefano adx@...
[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Is your sidetone always blaringly loud or only during keying? My sidetone
> volume on band switching is fine, but on keying it's so loud you can't put
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18075. Re: [AT_Sprint] Re: MTR5B (LNR) sidetone volume

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-25 15:26:37 UTC
From: Anthony DeStefano
Topic: 18069 Message: 18075

I'm pretty sure I've already checked that and found that the mute voltages are correct and U5 is switching. I'll add it to the list of things to triple check though.
-A
--
Anthony DeStefano
adx@...

On Tue, Jul 25, 2017, at 09:06 AM, Joe Street racingtheclouds@... [AT_Sprint] wrote:>
>

> Did you check the mute circuit?
>
> On Mon, Jul 24, 2017 at 6:34 PM, Anthony DeStefano adx@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:>> __
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>> __

>> Is your sidetone always blaringly loud or only during keying? My sidetone volume on band switching is fine, but on keying it's so loud you can't put on the headphones. Every month or two I pull mine off the shelf and mess with it for a bit, but still haven't tracked it down yet. I'm sure it's a bad connection somewhere in the keying or PA circuits, but I tracked it down yet.>>
>> -A
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>> --
>> Anthony DeStefano
>> adx@fastmail.fm
>>
>>
>> On Mon, Jul 24, 2017, at 08:46 AM, heinz.baertschi@bluewin.ch [AT_Sprint] wrote:>>>
>>>

>>> The typo (133k) is in fact on the MTR5B manual (rev. 12-12-15) only.>>>
>>> So I will invest some time to find a way to mount an SMD trimmer pot at R16, which could then also be applied to the MTR3B (because the Hearing of different users is very different).>>>
>>> It would be interesting to hear also the opinion/suggestion by Steve @kd1jv.>>>

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Links:

1. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/messages/18074;_ylc=X3oDMTJydXZnbmRsBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxODA3NARzZWMDZnRyBHNsawNycGx5BHN0aW1lAzE1MDA5ODgwMTc-?act=reply&messageNum=18074
2. mailto:racingtheclouds@...?subject=Re%3A%20%5BAT_Sprint%5D%-20Re%3A%20MTR5B%20%28LNR%29%20sidetone%20volume
3. mailto:AT_Sprint@yahoogroups.com?subject=Re%3A%20%5BAT_Sprint%5D%-20Re%3A%20MTR5B%20%28LNR%29%20sidetone%20volume
4. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/newtopic;_ylc=X3oDMTJmazNha25yBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDZnRyBHNsawNudHBjBHN0aW1lAzE1MDA5ODgwMTc-
5. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/topics/18069;_ylc=X3oDMTM3Mzdva2xuBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxODA3NARzZWMDZnRyBHNsawN2dHBjBHN0aW1lAzE1MDA5ODgwMTcEdHBjSWQDMTgwNjk-
6. https://yho.com/1wwmgg
7. https://groups.yahoo.com/neo/groups/AT_Sprint/info;_ylc=X3oDMTJmbzEwcDRmBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2Z2hwBHN0aW1lAzE1MDA5ODgwMTc-
8. https://groups.yahoo.com/neo/groups/AT_Sprint/members/all;_ylc=X3oDMTJnMWM5bXRuBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2bWJycwRzdGltZQMxNTAwOTg4MDE3
9. https://info.yahoo.com/privacy/us/yahoo/groups/details.html
10. mailto:AT_Sprint-unsubscribe@yahoogroups.com?subject=Unsubscribe
11. https://info.yahoo.com/legal/us/yahoo/utos/terms/

18076. FS: SODA POP 40m

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-25 18:42:00 UTC
From: Randy Moore
Topic: 18076 Message: 18076

I would like to sell my Soda Pop built for 40m. Pictures are here:

https://www.dropbox.com/sh/8ilmrt7g422zt5t/AAB03WyftPmqlf9-o0uhYjMZa?dl=0

Works fine with about 4 watts out with power supply voltage of 11.7 volts.

It's mounted in an aluminum box about 4 3/4 x 3 5/8 x 1 3/8. My hole cutting on the face of the rig isn't bad. Less good on the back where all the connectors are. The mounting nut and washer that came with my kit for the BNC connector were the wrong size, so I don't have one on the BNC. Knobs included. Also I'll include a power plug, but without wires.

I have upgraded the processor with Camil's, PD7LOL, firmware, which fixes some minor glitches and adds some nice features. I'll also include the Arduino Uno needed to load the firmware so you can return to Steve's firmware, or load other upgrades. This cost me $25.

I'd like to get $125 for all the above.

If interested, or have questions, email me direct at wrmoore47 (at) gmail (dot) com.

Tnx es 73,
Randy, KS4L

18077. Re: FS: SODA POP 40m

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-25 19:26:43 UTC
From: Randy Moore
Topic: 18076 Message: 18077

Sold pending funds.

73,
Randy, KS4L

On Jul 25, 2017 1:42 PM, "Randy Moore" <wrmoore47@...> wrote:

I would like to sell my Soda Pop built for 40m. Pictures are here:

https://www.dropbox.com/sh/8ilmrt7g422zt5t/AAB03WyftPmqlf9-o0uhYjMZa?dl=0

Works fine with about 4 watts out with power supply voltage of 11.7 volts.

It's mounted in an aluminum box about 4 3/4 x 3 5/8 x 1 3/8. My hole cutting on the face of the rig isn't bad. Less good on the back where all the connectors are. The mounting nut and washer that came with my kit for the BNC connector were the wrong size, so I don't have one on the BNC. Knobs included. Also I'll include a power plug, but without wires.

I have upgraded the processor with Camil's, PD7LOL, firmware, which fixes some minor glitches and adds some nice features. I'll also include the Arduino Uno needed to load the firmware so you can return to Steve's firmware, or load other upgrades. This cost me $25.

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If interested, or have questions, email me direct at wrmoore47 (at) gmail (dot) com.

Tnx es 73,
Randy, KS4L

18078. Re: [AT_Sprint] Re: MTR5B (LNR) sidetone volume

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-26 02:10:23 UTC
From: Anthony DeStefano
Topic: 18069 Message: 18078

Tonight I tripled checked the mute control and that's working fine. Also checked the keying circuit and that seemed to be doing the correct thing.
Back on the shelf it goes until I try to take another whack at it in a couple more months.
-A

--
Anthony DeStefano
adx@...

On Tue, Jul 25, 2017, at 09:06 AM, Joe Street racingtheclouds@... [AT_Sprint] wrote:>
>

> Did you check the mute circuit?
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> On Mon, Jul 24, 2017 at 6:34 PM, Anthony DeStefano adx@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:>> __
>>
>> __

>> Is your sidetone always blaringly loud or only during keying? My sidetone volume on band switching is fine, but on keying it's so loud you can't put on the headphones. Every month or two I pull mine off the shelf and mess with it for a bit, but still haven't tracked it down yet. I'm sure it's a bad connection somewhere in the keying or PA circuits, but I tracked it down yet.>>
>> -A
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>> --
>> Anthony DeStefano
>> adx@...
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>> On Mon, Jul 24, 2017, at 08:46 AM, heinz.baertschi@... [AT_Sprint] wrote:>>>
>>>

>>> The typo (133k) is in fact on the MTR5B manual (rev. 12-12-15) only.>>>
>>> So I will invest some time to find a way to mount an SMD trimmer pot at R16, which could then also be applied to the MTR3B (because the Hearing of different users is very different).>>>
>>> It would be interesting to hear also the opinion/suggestion by Steve @kd1jv.>>>

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2. mailto:racingtheclouds@...?subject=Re%3A%20%5BAT_Sprint%5D%-20Re%3A%20MTR5B%20%28LNR%29%20sidetone%20volume
3. mailto:AT_Sprint@yahoogroups.com?subject=Re%3A%20%5BAT_Sprint%5D%-20Re%3A%20MTR5B%20%28LNR%29%20sidetone%20volume
4. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/newtopic;_ylc=X3oDMTJmazNha25yBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDZnRyBHNsawNudHBjBHN0aW1lAzE1MDA5ODgwMTc-
5. https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/topics/18069;_ylc=X3oDMTM3Mzdva2xuBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxODA3NARzZWMDZnRyBHNsawN2dHBjBHN0aW1lAzE1MDA5ODgwMTcEdHBjSWQDMTgwNjk-
6. https://yho.com/1wwmgg
7. https://groups.yahoo.com/neo/groups/AT_Sprint/info;_ylc=X3oDMTJmbzEwcDRmBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2Z2hwBHN0aW1lAzE1MDA5ODgwMTc-
8. https://groups.yahoo.com/neo/groups/AT_Sprint/members/all;_ylc=X3oDMTJnMWM5bXRuBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2bWJycwRzdGltZQMxNTAwOTg4MDE3
9. https://info.yahoo.com/privacy/us/yahoo/groups/details.html
10. mailto:AT_Sprint-unsubscribe@yahoogroups.com?subject=Unsubscribe
11. https://info.yahoo.com/legal/us/yahoo/utos/terms/

18079. RE: [AT_Sprint] Re: MTR5B (LNR) sidetone volume

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-26 03:35:28 UTC
From: Mike Olbrisch
Topic: 18069 Message: 18079

Hmmm - just a thought. If it is the challenge for you, then go at it as you will. But if you want to get it working, why not beg Steve or Dale or another good guy on the list directly for some help. Perhaps they can tell you some obscure stuff to check. And if it gets really interesting and they get really curious, perhaps one of them will take up the challenge and tell you to send it to them.

Best of luck on it.

Vy73 -- Mike -- KD5KC.

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Tuesday, July 25, 2017 20:10
To: Joe Street racingtheclouds@... [AT_Sprint]
Subject: Re: [AT_Sprint] Re: MTR5B (LNR) sidetone volume

Tonight I tripled checked the mute control and that's working fine. Also checked the keying circuit and that seemed to be doing the correct thing.

Back on the shelf it goes until I try to take another whack at it in a couple more months.

-A

--
Anthony DeStefano
adx@...

On Tue, Jul 25, 2017, at 09:06 AM, Joe Street racingtheclouds@... [AT_Sprint] wrote:

Did you check the mute circuit?

On Mon, Jul 24, 2017 at 6:34 PM, Anthony DeStefano adx@... [AT_Sprint]
<AT_Sprint@yahoogroups.com> wrote:

Is your sidetone always blaringly loud or only during keying? My sidetone volume on band switching is fine, but on keying it's so loud you can't put on the headphones. Every month or two I pull mine off the shelf and mess with it for a bit, but still haven't tracked it down yet. I'm sure it's a bad connection somewhere in the keying or PA circuits, but I tracked it down yet.

-A

--
Anthony DeStefano
adx@...

On Mon, Jul 24, 2017, at 08:46 AM, heinz.baertschi@... [AT_Sprint] wrote:

The typo (133k) is in fact on the MTR5B manual (rev. 12-12-15) only.

So I will invest some time to find a way to mount an SMD trimmer pot at R16, which could then also be applied to the MTR3B (because the Hearing of different users is very different).

It would be interesting to hear also the opinion/suggestion by Steve @kd1jv.

18080. Stupid Question: Differences between MTR3b and MTR v2?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-26 03:51:56 UTC
From: kieran2230@...
Topic: 18080 Message: 18080

Is there any difference between the LNR precision MTR3b and the MTR version 2 kit?

18081. Re: [AT_Sprint] Re: MTR5B (LNR) sidetone volume

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-26 03:43:41 UTC
From: Dale Putnam
Topic: 18069 Message: 18081

The "5" has occasionally had an issue like that.. with the sidetone.

I'd be happy to look at it for you, if you want?

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of 'Mike Olbrisch' mike-2007@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Tuesday, July 25, 2017 9:35 PM
To: AT_Sprint@yahoogroups.com
Subject: RE: [AT_Sprint] Re: MTR5B (LNR) sidetone volume

Hmmm - just a thought. If it is the challenge for you, then go at it as you will. But if you want to get it working, why not beg Steve or Dale or another good guy on the list directly for some help. Perhaps they can tell you some obscure stuff to check. And if it gets really interesting and they get really curious, perhaps one of them will take up the challenge and tell you to send it to them.

Best of luck on it.

Vy73 -- Mike -- KD5KC.

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Tuesday, July 25, 2017 20:10
To: Joe Street racingtheclouds@gmail.com [AT_Sprint]
Subject: Re: [AT_Sprint] Re: MTR5B (LNR) sidetone volume

Tonight I tripled checked the mute control and that's working fine. Also checked the keying circuit and that seemed to be doing the correct thing.

Back on the shelf it goes until I try to take another whack at it in a couple more months.

-A

--
Anthony DeStefano
adx@...<mailto:adx@fastmail.fm>

On Tue, Jul 25, 2017, at 09:06 AM, Joe Street racingtheclouds@gmail.com<mailto:racingtheclouds@...> [AT_Sprint] wrote:

Did you check the mute circuit?

On Mon, Jul 24, 2017 at 6:34 PM, Anthony DeStefano adx@...<mailto:adx@...> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

Is your sidetone always blaringly loud or only during keying? My sidetone volume on band switching is fine, but on keying it's so loud you can't put on the headphones. Every month or two I pull mine off the shelf and mess with it for a bit, but still haven't tracked it down yet. I'm sure it's a bad connection somewhere in the keying or PA circuits, but I tracked it down yet.

-A

--
Anthony DeStefano
adx@...<mailto:adx@...>

On Mon, Jul 24, 2017, at 08:46 AM, heinz.baertschi@...<mailto:heinz.baertschi@...> [AT_Sprint] wrote:

The typo (133k) is in fact on the MTR5B manual (rev. 12-12-15) only.

So I will invest some time to find a way to mount an SMD trimmer pot at R16, which could then also be applied to the MTR3B (because the Hearing of different users is very different).

It would be interesting to hear also the opinion/suggestion by Steve @kd1jv.

18082. FS: MTR3

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-27 17:35:43 UTC
From: ae5x@...
Topic: 18082 Message: 18082

This is the KD1JV version, not LNR. 20,30,40 meters near mint condition cosmetically and operationally. $200 I pay shipping, US only.

Video demo at:
https://ae5x.blogspot.com/2017/07/for-sale-kd1jv-mtr-3-qrp-transceiver.html
https://ae5x.blogspot.com/2017/07/for-sale-kd1jv-mtr-3-qrp-transceiver.html

John AE5X

18083. Re: [AT_Sprint] FS: MTR3

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-27 18:03:27 UTC
From: Randy Moore
Topic: 18082 Message: 18083

Cool video! Love the surprise inserts!

73,
Randy, KS4L

> On Jul 27, 2017, at 12:35 PM, ae5x@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> This is the KD1JV version, not LNR. 20,30,40 meters near mint condition cosmetically and operationally. $200 I pay shipping, US only.
>
> Video demo at:
> https://ae5x.blogspot.com/2017/07/for-sale-kd1jv-mtr-3-qrp-transceiver.html
>
> John AE5X
>
>

18084. Re: MTR5B (LNR) sidetone volume

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-27 18:44:05 UTC
From: heinz.baertschi@...
Topic: 18069 Message: 18084

Everything is ok now, thank you for your attention.
It could be found that the sidetone volume can be adjusted within a wide range by R26 (MTR5B) and R20 (MTR3B).
The determined resistance values of R26/R20 to meet the individual needs are in the range of 100-120k.

BTW, A typo has been found in the MTR5B manual rev. 12-12-15: R21 (133k) shown in the schematic is in fact/in the parts list 113k (equal value as in MTR3B).

73, Heinz HB9BCB

> heinzbaertschi wrote on Jul 24 2:02 AM
>
> A side-by-side comparison of the sidetone volumes with the MTR5B (LNR) and several MTR3B (LNR) shows that the volume
on
> the MTR5B is significantly higher and is thus clearly in the unpleasant range.
> Curious: The relevant circuit is exactly the same for both models, except that R16 (22k) on the MTR5B is connected to
> +5V and R8 (22k) on the MTR3B to +3.3V. Can this explain the big difference?
> Has anyone changed the sidetone volume on the MTR5B and if so, how (component values) and with what result?
>

18085. Re: ats-3b kits

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-30 18:21:46 UTC
From: ae5x@...
Topic: 18060 Message: 18085

Not a kit but I have a built one for sale.

John AE5X
https://ae5x.blogspot.com https://ae5x.blogspot.com/

18086. Re: ats-3b kits

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-07-31 18:52:53 UTC
From: ki8as@...
Topic: 18060 Message: 18086

Hi John

Tom here. Do you have some pictures and or how much are you asking for your radio?

Tom C

KI8AS

18087. Re: MBDC band conversion questions

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-02 00:45:43 UTC
From: johnroland51@...
Topic: 18061 Message: 18087

Having replaced the 160 meter lpf with values for 40 meters I went to reprogram Band B for 40 meters following the instructions in the REV1 version of the manual on page 7.
Problem is that 40 meters doesn't appear to be assigned as as Band B. So I still have 80 meters on the display when the band switches are forward and 160 meters when they are toward the rear of the rig. Now an asterisk appears in the display on both bands. And fwiw when I cycle through the Band menu, I now have an asterisk showing on all bands but 40. Am I missing something?

Thanks /John W7SWB

18088. RE: [AT_Sprint] MTR-5B Battery and 40 Character Display

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-02 22:01:30 UTC
From: dl2arl@...
Topic: 17977 Message: 18088

> The solution (which I explained in an earlier post a few weeks ago) is to replace the coin cell with two “AAA” cells.<

done that! Works great. It also fills the belly of the MTR5 in a genuine LNR Box so that it does feel fuller somehow. The side-screws find something to work against. The genuine Box was not even near to a perfect fit to my kit-MTR5. I had to bend and rasp and curse...

But now: I have another side-problem. After having the BigBen running (the MTR5 clock, the feature I needed least to this rig), I also have CW readout of my keying input on the display. Formerly, w/o battery, this function seemingly disabled itself after turn-off.

Now, this function is rather making me dizzy because it shows me things I already begin to forget (characters I already successfully formed, inputed and trasmitted to my qso partner with the keyer) whereas I now try to concentrate upon the over-next character to be formed, the next being already in my fingers, no longer in the brain.

But even so, this function could be of some use for advertising HAM radio. People, my own non-hamming family, looking over my shoulder at some occasions could see what the dits and dashes they hear really mean.

Well... they could, for a short glimpse. After some maybe 40..50..60 characters (I did not count them), the display freezes and only resets itself to the qrg display after going back to Rx. It must be some sort of cheap bug, things not being decoded in an endless loop but needlessly cut down to a given frame of the dimension of the memory slots M1 to M3.

I am using MTR5B firmware update 1.3.2.

Any clue?

Happy as can be with the AAA-Clock (what a bummer, it has no alarm),
73, Razvan DL2ARL

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :

Yes, even more so.

Steve KD1JV

Does this battery quirk pertain to the MTR5b only or does it apply equally to the MTR4b?

Many thanks for info.

73, Joe W2KJ
MTR4b

> The solution (which I explained in an earlier post a few weeks ago) is to replace the coin cell with two “AAA” batteries. With careful placement, a 2X AAA battery holder will fit in the 5B case, secure it with some double sided tape inside the bottom piece of the case.

>

18089. Re: mtr3b with arduino inside

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-02 20:45:41 UTC
From: ut0um@...
Topic: 17766 Message: 18089

Hello

my friend Vlad US7IGN finished second MTR-3B with Arduino inside
and fit to cheese box :)

This is short story in pictures
https://youtu.be/ReUY8nKfaEg https://youtu.be/ReUY8nKfaEg

73! Alexey UT0UM

18090. RE: [AT_Sprint] Re: mtr3b with arduino inside

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-03 12:37:41 UTC
From: F5NFB
Topic: 17766 Message: 18090

Excellent.

I just hope he feels better than an old camembert.

Hi Hi Hi.

73 and best regards.

De : AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Envoyé : mercredi 2 août 2017 22:46
À : AT_Sprint@yahoogroups.com
Objet : [AT_Sprint] Re: mtr3b with arduino inside

Hello

my friend Vlad US7IGN finished second MTR-3B with Arduino inside

and fit to cheese box :)

This is short story in pictures

https://youtu.be/ReUY8nKfaEg

73! Alexey UT0UM

18091. RE: [AT_Sprint] Re: MBDC band conversion questions

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-04 17:02:37 UTC
From: Steven Weber
Topic: 18061 Message: 18091
Attachments: 1 described; binary payloads are missing from this source WARC

I saw a note in the manual where I mixed up the bands. You need to reverse the order when programming. Program 40 as band A then 80 as band B and then 80 will become band A and 40 band B

Steve

Having replaced the 160 meter lpf with values for 40 meters I went to reprogram Band B for 40 meters following the instructions in the REV1 version of the manual on page 7. Problem is that 40 meters doesn't appear to be assigned as as Band B. So I still have 80 meters on the display when the band switches are forward and 160 meters when they are toward the rear of the rig. Now an asterisk appears in the display on both bands. And fwiw when I cycle through the Band menu, I now have an asterisk showing on all bands but 40. Am I missing something?

Thanks /John W7SWB

18092. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-06 05:34:26 UTC
From: John Sutter
Topic: 17960 Message: 18092

I finally got around to moving R29 from 12V to the 5V supply.

There is a 5V trace about 1 cm from the drain of Q16. I moved
R29 to the drain pin and jumped the last few mm to that trace.

It seems fine, no howling. I can hear the W6WX 20m beacon fine

On 6/1/2017 12:22 PM, 'Steven Weber' steve.kd1jv@... [AT_Sprint] wrote:

☐

Q16 is a level shifter which changes the 3.3V signal from the clock chip to the full DC supply voltage. 3.3V wasn't enough swing to get good conversion gain when the DC supply is up at 13.8V, but could be enough at lower supply voltages.

If you want to reduce the drive, adding a resistor to ground from R29 would be the best way to do it. Or disconnect R29 from the DC supply bus and reconnect it to the 5V bus, which is near-by. A 5V swing is probaby enough to get good conversion gain and would be supply voltage independent. I'll have to try that when I get a chance.

Steve KD1JV

18093. Re: [AT_Sprint] SODA POP Display

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-06 10:21:03 UTC
From: John Sutter
Topic: 18021 Message: 18093

Which displays/sources seem to be working?

What's the original part number? Due to a particularly clever move with
the soldering iron, the part number on mine is illegible.

- John W1JDS

On 6/28/2017 4:02 AM, eliamady@... [AT_Sprint] wrote:

Hi Steve,

Thanks for the reply. I am starting to collect parts for a custom build of the SP. Will post some photos when done.

73 Elia, M0ZHN

18094. RE: [AT_Sprint] SODA POP Display

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-06 16:26:39 UTC
From: Steven Weber
Topic: 18021 Message: 18094

I miss spoke, they are common Cathode displays.

The number on the display is SB820361G, but a search may not come up with anything. I got them from Tayda Electronics, who ship from Thailand. I've seen similar displays on ebay, but not sure if they are pin compatible or not.

KD1JV

Which displays/sources seem to be working?

What's the original part number? Due to a particularly clever move with
the soldering iron, the part number on mine is illegible.

- John W1JDS

18095. Re: [AT_Sprint] SODA POP Display

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-06 22:37:48 UTC
From: John Sutter
Topic: 18021 Message: 18095

I found the SR820361G
https://www.yoycart.com/Product/19972104127/
https://www.hxlstore.com/44981347903.shtml

A datasheet for the SR820361G is at:
http://www.arkled.net/skin/S00095/images/pdf/SR810361.pdf
1 is CC
2 is CA

I don't know anything about the vendors, but I will probably take a chance
and get some. Just have to see what other goodies they might have...

- John

On 8/6/2017 9:26 AM, Steven Weber steve.kd1jv@... [AT_Sprint] wrote:

I miss spoke, they are common Cathode displays.

The number on the display is SB820361G, but a search may not come up with anything. I got them from Tayda Electronics, who ship from Thailand. I’ve seen similar displays on ebay, but not sure if they are pin compatible or not.

KD1JV

Which displays/sources seem to be working?

What's the original part number? Due to a particularly clever move with
the soldering iron, the part number on mine is illegible.

- John W1JDS

18096. Re: [AT_Sprint] MTR-5B Battery and 40 Character Display

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-07 07:49:30 UTC
From: Martin Hepp
Topic: 17977 Message: 18096

Dear all:

I am thinking of another fix for this issue and would like to hear your feedback on this before trying:

Background: I mostly use 4.8 or 6 V NimH battery packs with my MTR5B, in combination with a 12V-step-up converter (DC/DC buck-up), like this one from Pololu:

https://www.pololu.com/product/2117

This works like a charm, since you always get the full 4/5W output, independent of the battery voltage, and a 4 x AA pack last for many hours of operation; even 4 x AAA might be sufficient.

Now, I thought that the most elegant way to add a permanent supply to the RTC was to use a low-drop voltage regulator for 3 Volts (not 3.3), like this one

http://www.mouser.com/ds/2/389/en.DM00109416-1097153.pdf

directly from the NimH battery pack, i.e. before the MTRs power switch, to the +-pin of the CE2032 battery holder.

The voltage regulator will have very low losses, so the current draw from the battery will be more or less in the order of what the MTR's MCU will consume. At the same time, the LDO and the battery can cover loads up to 200mA, so the 2-3 mA spikes that cause problems with the coin cells are easy to be handled.

If this approach works, it could even be added to the MTR5B design by default. The only thing one must observe is that if the rig is not in use for several months, one should disconnect the external battery. But at 2800 mA (for 4 x AA), e.. an 1 mA draw would make the battery last for more than 100 days.

Any thoughts?

73 de Martin, DK3IT

> On 03 Aug 2017, at 00:01, dl2arl@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> > The solution (which I explained in an earlier post a few weeks ago) is to replace the coin cell with two “AAA” cells.<
>
> done that! Works great. It also fills the belly of the MTR5 in a genuine LNR Box so that it does feel fuller somehow. The side-screws find something to work against. The genuine Box was not even near to a perfect fit to my kit-MTR5. I had to bend and rasp and curse...
>
> But now: I have another side-problem. After having the BigBen running (the MTR5 clock, the feature I needed least to this rig), I also have CW readout of my keying input on the display. Formerly, w/o battery, this function seemingly disabled itself after turn-off.

>
> Now, this function is rather making me dizzy because it shows me things I already begin to forget (characters I already successfully formed, inputed and trasmitted to my qso partner with the keyer) whereas I now try to concentrate upon the over-next character to be formed, the next being already in my fingers, no longer in the brain.
>
> But even so, this function could be of some use for advertising HAM radio. People, my own non-hamming family, looking over my shoulder at some occasions could see what the dits and dashes they hear really mean.
>
> Well... they could, for a short glimpse. After some maybe 40..50..60 characters (I did not count them), the display freezes and only resets itself to the qrg display after going back to Rx. It must be some sort of cheap bug, things not being decoded in an endless loop but needlessly cut down to a given frame of the dimension of the memory slots M1 to M3.
>
> I am using MTR5B firmware update 1.3.2.
>
> Any clue?
>
> Happy as can be with the AAA-Clock (what a bummer, it has no alarm),
> 73, Razvan DL2ARL
>
>
>
> ---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :
>
> Yes, even more so.
>
>
> Steve KD1JV
>
>
>
> Does this battery quirk pertain to the MTR5b only or does it apply equally to the MTR4b?
>
>
> Many thanks for info.
>
>
> 73, Joe W2KJ
>
> MTR4b
>
>
> > The solution (which I explained in an earlier post a few weeks ago) is to replace the coin cell with two “AAA” batteries. With careful placement, a 2X AAA battery holder will fit in the 5B case, secure it with some double sided tape inside the bottom piece of the case.
>
> >

>
>
>
>

18097. NAQCC August Sprint this Tuesday Evening

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-08 00:20:12 UTC
From: Larry W2LJ
Topic: 18097 Message: 18097

The August NAQCC sprint is this coming Tuesday evening local time (August 8th, EDT - 8:30-10:30PM, CDT - 7:30-9:30PM, MDT - 6:30-8:30PM, PDT - 5:30-7:30PM), which translates as Wednesday, August 9th, 0030 to 0230Z in all cases.

For all the "official" information, please go to:

http://naqcc.info/sprint/sprint201708.html

There you will find all the details as to time, frequencies and other important information.

Certificates: SWA (simple wire antennas) certificates by call area, VE and DX for 1st, 2nd and 3rd place finishers (New!). A Certificate for top score in the GAIN antenna category.

Prizes: Too many to list!! - check out the prizes page on our website.

This is a monthly event that caters to the CW veteran, the CW newcomer, straight key and bug fans. All are welcome to participate (this includes QRO); but you must use QRP power levels to compete for awards.

If you've been hesitant to join in our sprints because you hear other sprints running at breakneck speeds, have no fear. Our sprints are geared to the newcomer to CW and/or contesting. Virtually everyone including the many veteran contesters who regularly enter our sprints will slow down to YOUR speed to help you make your contacts.

If you are not already a member of NAQCC... membership is FREE! Now is your chance to join the largest QRP CW Club in the world!! We currently have 9000+ members in: All 50 States - 9 VE Provinces - 100 Countries. Sign up on the NAQCC website today (http://naqcc.info/) and receive a handsome certificate, with your membership number on it, which is good for life.

Come join us and have a real good time!

72/73 de Larry W2LJ
NAQCC #35

for NAQCC
http://naqcc.info/

18098. Soda Pop For Sale

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-11 19:52:28 UTC
From: ku4qw@...
Topic: 18098 Message: 18098

I need to fund another project, have a sodapop radio kit unbuilt would like to sale, seen one sale for $125.00 so I will ask $118.00 shipped. If interested please contact me direct at ku4qw AT yahoo.com

18099. 2017 NJQRP Skeeter Hunt is NEXT Sunday

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-12 19:35:16 UTC
From: Larry W2LJ
Topic: 18099 Message: 18099

The 2017 NJQRP Skeeter Hunt is next Sunday - August 20th!

Make sure to join in the fun with a pair of wings! Get a Skeeter number by sending an e-mail to w2lj@arrl.net

The Skeeter Hunt is open to ALL Amateur Radio Operators.The rules and all the details can be found at
http://www.qsl.net/w2lj

73 de Larry W2LJ
NJQRP Skeeter Hunt Manager - Skeeter # 13

18100. new to portable ops. Rig comparison

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-21 18:09:01 UTC
From: jlgray.kr3ep@...
Topic: 18100 Message: 18100

Ok guys. New to portable ops and seeking information. I have been looking at 2 rigs both designed by Steve. The 5B and the PFR3B. Thoughts?
Are there perhaps others to consider?
Like the idea of 5 bands, but also like the idea of a portable with a tuner integrated into it. I ride a recumbent trike and looking for a setup I could fit in a pack, and setup wherever with a minimum of equipment.
Other ideas appreciated, Jeff KR3EP

18101. 2017 NJQRP Skeeter Hunt Log Summaries

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-22 01:43:22 UTC
From: Larry W2LJ
Topic: 18101 Message: 18101

Thanks to all who participated in the 2017 NJQRP Skeeter Hunt last Sunday.

Even though band conditions were reported to be less than ideal,
I am hoping you had fun, nevertheless.

Please remember that all Log Summaries are due NO LATER than MIdnight of Sunday evening, September 3rd. You can send them via e-mail to w2lj@arrl.net

All log submissions will be confirmed with a follow up e-mail, so if you make a submission but don't hear from me, then please try again.

73 de Larry W2LJ
NJQRP Skeeter Hunt Manager - Skeeter # 13

18102. Re: new to portable ops. Rig comparison

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-22 03:04:17 UTC
From: w7aqk@...
Topic: 18100 Message: 18102

The built in ATU is a good feature for mobile/portable since the antenna you will probably be using is apt to be fairly sharp as to resonance. So, you may like the PFR-3 better. You could use something like an Elecraft T-1 tuner with something else. That might all fit, even on a recumbent bike!

Better yet, maybe, spring for a KX2!! Now, that is an almost perfect rig for that sort of thing, and you can get 10 watts out of it. An older KX1 isn't a bad choice either, although the internal ATU (optional) isn't as good as the one they now offer for the KX2, but if your antenna is resonant somewhere on the band, it will do the job. You probably wouldn't get more than 3 or 4 watts out of a KX1, but it can be enough!

Dave W7AQK

18103. FS: Soda Pop

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-23 01:31:12 UTC
From: mst72481@...
Topic: 18103 Message: 18103

Ok folks,
Up for grabs is my unopened (except for the box Steve sent it to me in) Soda Pop kit. I bought it with the intention of making it my SOTA rig. Then I bought a KX2. And since I have too many projects this one needs to find a new home. I believe I paid $75 for the kit, so how bout $85 which will include Priority Mail and my gas to get to the post office, not trying to gouge anyone.

Email me or reply here, either way. I'll post here if sold.

Thanks,
Michael N6MST

18104. Re: [AT_Sprint] FS: Soda Pop

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-23 11:11:22 UTC
From: Chris Merck
Topic: 18103 Message: 18104

I'm interested!

Address
Chris A Merck
106 Summit Dr
Sussex NJ 07461

Can pay via PayPal or Venmo.

973-459-0582

Tnx de Chris W2CAM

On Aug 22, 2017 9:31 PM, "mst72481@... [AT_Sprint]" <
AT_Sprint@yahoogroups.com> wrote:

>
>
> Ok folks,
>
> Up for grabs is my unopened (except for the box Steve sent it to me in)
> Soda Pop kit. I bought it with the intention of making it my SOTA rig. Then
> I bought a KX2. And since I have too many projects this one needs to find a
> new home. I believe I paid $75 for the kit, so how bout $85 which will
> include Priority Mail and my gas to get to the post office, not trying to
> gouge anyone.
>
>
> Email me or reply here, either way. I'll post here if sold.
>
>
> Thanks,
>
> Michael N6MST
>
>

18105. Re: new to portable ops. Rig comparison

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-23 16:44:42 UTC
From: jlgray.kr3ep@...
Topic: 18100 Message: 18105

Thanks for the recommendations !.

18106. Re: FS: Soda Pop

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-23 18:35:57 UTC
From: mst72481@...
Topic: 18103 Message: 18106

Hi all, Kit was bought and paid for early this morning, thanks!

Michael N6MST

18107. FS: Two MSP430 Launch Pads $10 each shipped USPS 1st class

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-25 17:37:33 UTC
From: lew@...
Topic: 18107 Message: 18107

Hi Folks,
I found two MSP430 "Value Line" Launchpad Development Tools while sorting through my junkbox. I believe these were used as development system interfaces to reflash some of Steve's ATS rigs. I opened the boxes but never used them for anything.

The boards are selling for $16 on Amazon on 8/25/17.

Paypal preferred but a USPS MO is fine too. I'll take a check from a US bank too but I'll hold shipping until it clears.

Thanks for the bandwidth.

72/73,
Lew
K7GO

18108. Re: [AT_Sprint] FS: Two MSP430 Launch Pads $10 each shipped USPS 1st class

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-08-25 20:56:22 UTC
From: Lew Paceley
Topic: 18107 Message: 18108

Both TI Launchpads are sold pending funds. Thanks for your interest.

72/73,
Lew
K7GO

On Fri, Aug 25, 2017 at 11:37 AM, lew@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> Hi Folks,
>
> I found two MSP430 "Value Line" Launchpad Development Tools while sorting
> through my junkbox. I believe these were used as development system
> interfaces to reflash some of Steve's ATS rigs. I opened the boxes but
> never used them for anything.
>
>
> The boards are selling for $16 on Amazon on 8/25/17.
>
>
> Paypal preferred but a USPS MO is fine too. I'll take a check from a US
> bank too but I'll hold shipping until it clears.
>
>
> Thanks for the bandwidth.
>
>
> 72/73,
>
> *Lew*
>
> K7GO
>
>
>
>

18109. Re: new to portable ops. Rig comparison

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-02 01:19:10 UTC
From: jlgray.kr3ep@...
Topic: 18100 Message: 18109

Thanks guys.

18110. WTB

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-02 18:58:16 UTC
From: jlgray.kr3ep@...
Topic: 18110 Message: 18110

Have looked at different sites. It seems nobody has an AT Sprint, PFR3 or MTR for sale used. No such luck and can't afford a new one. Looked at EHAM, QRZ, any other sites I should check ?

18111. Re: [AT_Sprint] WTB

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-02 19:16:15 UTC
From: george@...
Topic: 18110 Message: 18111
Attachments: 1 described; binary payloads are missing from this source WARC

Put out a search ad describing what you are looking for. This has
worked very well for me in the past to find specific equipment and parts
on these sites. 73, George WA1PDY

On 2017-09-02 14:58, jlgray.kr3ep@... [AT_Sprint] wrote:

> Have looked at different sites. It seems nobody has an AT Sprint, PFR3 or MTR for sale used. No such luck and can't afford a new one. Looked at EHAM, QRZ, any other sites I should check ?
>
>

Links:
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[1] https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/messages/18110;_ylc=X3oDMTJyNWw1YTMxBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxODExMARzZWMDZnRyBHNsawNycGx5BHN0aW1lAzE1MDQzNzg2OTc-?act=reply&messageNum=18110
[2] https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/newtopic;_ylc=X3oDMTJmNjN0YjdrBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDZnRyBHNsawNudHBjBHN0aW1lAzE1MDQzNzg2OTc-
[3] https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/topics/18110;_ylc=X3oDMTM3dGFzdW0xBF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxODExMARzZWMDZnRyBHNsawN2dHBjBHN0aW1lAzE1MDQzNzg2OTcEdHBjSWQDMTgxMTA-
[4] https://yho.com/1wwmgg
[5] https://groups.yahoo.com/neo/groups/AT_Sprint/info;_ylc=X3oDMTJmaWpvbjY3BF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2Z2hwBHN0aW1lAzE1MDQzNzg2OTc-
[6] https://groups.yahoo.com/neo/groups/AT_Sprint/members/all;_ylc=X3oDMTJnM3J1M2x0BF9TAzk3MzU5NzE0BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2bWJycwRzdGltZQMxNTA0Mzc4Njk3
[7] https://groups.yahoo.com/neo;_ylc=X3oDMTJlc29odGFuBF9TAzk3NDc2NTkwBGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDZnRyBHNsawNnZnAEc3RpbWUDMTUwNDM3ODY5Nw--
[8] https://info.yahoo.com/privacy/us/yahoo/groups/details.html
[9] https://info.yahoo.com/legal/us/yahoo/utos/terms/

18112. Re: [AT_Sprint] WTB

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-02 19:17:09 UTC
From: Martin Hepp
Topic: 18110 Message: 18112

It s just an incredibly great radio ;) i use mine almost every day, except when i use my mtr 5b

> On 2. Sep 2017, at 20:58, jlgray.kr3ep@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> Have looked at different sites. It seems nobody has an AT Sprint, PFR3 or MTR for sale used. No such luck and can't afford a new one. Looked at EHAM, QRZ, any other sites I should check ?
>
>
>
>
>

18113. Re: [AT_Sprint] WTB

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-02 19:52:39 UTC
From: jlgray.kr3ep@...
Topic: 18110 Message: 18113

Posted on QRZ and EHAM, any others you might recommend?

18114. Re: [AT_Sprint] WTB

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-03 00:18:02 UTC
From: W2CTX
Topic: 18110 Message: 18114

Whoever started this post I have some AT-sprint radios that are indifferent levels of working. I can send them to you for free if youwant them.
Ron

From: "jlgray.kr3ep@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: Saturday, September 2, 2017 3:52 PM
Subject: Re: [AT_Sprint] WTB

  Posted on QRZ and EHAM, any others you might recommend?

18115. FINAL CALL! 2017 NJQRP Skeeter Hunt Log Summaries

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-03 00:36:45 UTC
From: Larry W2LJ
Topic: 18115 Message: 18115

Thanks to all who participated in the 2017 NJQRP Skeeter Hunt.

Log Summaries are due NO LATER than MIdnight of Sunday evening,
September 3rd. That's tomoorw night! Any log summaries received after will
not count towards awards or certificates.

You can send them via e-mail to w2lj@arrl.net All log submissions will be confirmed
with a follow up e-mail, so if you make a submission but don't hear from me, then please
try again.

73 de Larry W2LJ
NJQRP Skeeter Hunt Manager - Skeeter # 13

18116. 2017 NJQRP Skeeter Hunt -Results are in!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-04 20:11:46 UTC
From: Larry W2LJ
Topic: 18116 Message: 18116

The results of the 2017 NJQRP Skeeter Hunt results are in! Congratulations to the following:

N5GW - First Place Overall
AB9CA - Second Place Overall
N3AQC - Third Place Overall
N0SS - Fourth Place Overall
K9DXA - Fifth Place Overall

To view the entire Scoreboard - please go to https://docs.google.com/spreadsheets/d/1BNYXnJYedY7ZfXftrCTj3cIf7bg9zZ__FyZgl9WrhAc/edit#gid=2003439823
To view the 2017 Sopabox comments and photos - please go to http://www.qsl.net/w2lj/index%20page%2010

Once again, thanks to all who signed up and participated - and special thanks to the NJQRP Club for supporting this annual Summertime QRP Event. Without ALL of you, sponsor and participants, none of this would be possible.

It is our fondest hope that the NJQRP Skeeter Hunt will continue to bring you fun and a good time well into the future!

72 de Larry W2L
NJQRP Skeeter Hunt Manager

18117. Re: [AT_Sprint] WTB

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-05 02:37:20 UTC
From: jlgray.kr3ep@...
Topic: 18110 Message: 18117

Thanks Ron

18118. Re: [AT_Sprint] WTB

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-05 17:13:58 UTC
From: W2CTX
Topic: 18110 Message: 18118

Sent this morning USPS PRIORITY TRACK# 9505511315877248053470
Also I found a little aluminum box I included, I believe it is a Wilderness SSTradio but I don't remember what band it is.
I am glad that this equipment will be used again.
Ron

From: "jlgray.kr3ep@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: Monday, September 4, 2017 10:37 PM
Subject: Re: [AT_Sprint] WTB

  Thanks Ron

18119. Unbuilt ATS-3A For Sale

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-05 22:47:50 UTC
From: J. Burnley
Topic: 18119 Message: 18119

I have an unbuilt ATS-3A for sale - price is $175 which includes priority mail shipping. Stateside only please. If you have any questions or would like to see photos of the kit, respond privately to me. If there is no interest, then I'll put up on the 'bay.
72/73, John NU0V

18120. Seems I am starting a collection.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-06 01:23:41 UTC
From: jlgray.kr3ep@...
Topic: 18120 Message: 18120

Found some of the rigs I was looking for. Now If I can find an ATS 4 I can afford...

18121. MTR and extras for sale

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-09 18:54:28 UTC
From: kk3t.ben@...
Topic: 18121 Message: 18121

Selling my MTR built for 40/20/17. Just don't use it. Includes MTR, SOTA tuner, KK1 American Morse key, pelican case, and headphones. Please contact me off list if interested.

18122. Strange symptoms in my 3 band MTR

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-13 00:12:32 UTC
From: thompsen73@...
Topic: 18122 Message: 18122

After successfully activating a SOTA peak yesterday with my 3 band MTR (V2?) I was back down the hill trying to demonstrate for my non-ham friend how the MTR tuning works.

There seems to be an issue with 20 meters now. When turning on the rig with the three switches to the 20 meter side, a "7" is displayed at startup rather than a "2" and the default frequency displayed is 14.068. There is no transmitted signal coming out on our anywhere between 14.060 and 14.068. Seems to be not transmitting on 20 meters. I'm listening on my other rig. 40 and 30 meters display and transmit normally.

Anyone else have a similar issue or have advice?

Thanks,
Todd
W7TAO

18123. Re: [AT_Sprint] Strange symptoms in my 3 band MTR

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-13 02:42:37 UTC
From: Dale Putnam
Topic: 18122 Message: 18123

Hi Todd,

Look at the band select resistors, R1, R2, R3.. with an eagle eye on R3. Then check over the components and board soldering near U8.

Also look over the switche near R1, R2, R3.

Good Luck,

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

From: AT_Sprint@...m <AT_Sprint@yahoogroups.com> on behalf of thompsen73@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Tuesday, September 12, 2017 6:12 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Strange symptoms in my 3 band MTR

After successfully activating a SOTA peak yesterday with my 3 band MTR (V2?) I was back down the hill trying to demonstrate for my non-ham friend how the MTR tuning works.

There seems to be an issue with 20 meters now. When turning on the rig with the three switches to the 20 meter side, a "7" is displayed at startup rather than a "2" and the default frequency displayed is 14.068. There is no transmitted signal coming out on our anywhere between 14.060 and 14.068. Seems to be not transmitting on 20 meters. I'm listening on my other rig. 40 and 30 meters display and transmit normally.

Anyone else have a similar issue or have advice?

Thanks,
Todd
W7TAO

18124. Re: Strange symptoms in my 3 band MTR

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-13 22:10:07 UTC
From: thompsen73@...
Topic: 18122 Message: 18124

Thanks Dale! I'll have a look.

Todd

18125. ANNUAL TAILGATE SALE - St. Louis QRP Society

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-15 20:40:02 UTC
From: dgauding@...
Topic: 18125 Message: 18125

Hi folks!

The St. Louis QRP Society is holding its Annual Tailgate Sale on Wednesday, September 20th at Creve Coeur Park.

6:00 p.m. until dark. Brats and chips available cheap for the hungry until gone. Please bring your own beverage.

Never a charge to buy or sell. Bring lots of money to buy stuff and bring your stuff to sell.

There are usually a few homebrew and commercial rigs, verticals, wires and mag loops on the air so feel free to join in.

Full details including directions at: http://www.slqs.net http://www.slqs.net/

SLQS begins its 30th year very soon. Hope you can join us for our annual mid-week event.

FOR THE ST. LOUIS QRP SOCIETY

Dave Gauding, NF0R

18126. Any unusually loud/sensitive earbuds out there for the MTR?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-17 11:03:42 UTC
From: n1eu.barry@...
Topic: 18126 Message: 18126

Has anybody really researched or ran tests and found/verified a pair of earbuds or IEMs with significantly higher output (i.e., more sensitivity)? I've tried a handful on my MTR5B and still long for another 5-10dB or output. I guess another alternative would be something like a Fiio A1 headphone amp.

Thanks & 73,
Barry N1EU

18127. Re: [AT_Sprint] Any unusually loud/sensitive earbuds out there for the MTR?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-17 12:54:09 UTC
From: Joe Street
Topic: 18126 Message: 18127

I like the 'sparkplug' ear buds made by Koss.

On Sun, Sep 17, 2017 at 7:03 AM, n1eu.barry@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> Has anybody really researched or ran tests and found/verified a pair of
> earbuds or IEMs with significantly higher output (i.e., more sensitivity)?
> I've tried a handful on my MTR5B and still long for another 5-10dB or
> output. I guess another alternative would be something like a Fiio A1
> headphone amp.
>
> Thanks & 73,
> Barry N1EU
>
>
>
>

18128. Re: [AT_Sprint] Any unusually loud/sensitive earbuds out there for the MTR?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-17 16:39:27 UTC
From: Scott Anderson
Topic: 18126 Message: 18128

Hi Barry,

If you haven't already, you might consider earphones with some sort of foam seal. I have a set of Etymonics that work very well, especially on windy summits, or the occasional crowded summit with lots of background conversations from fellow hikers. I find them to be very effective and the noise cancellation likely compensates for any lack of sensitivity.

I change the foam every few months to keep them soft and comfortable. Oh, and the foam is never very springy during New England winters, but other than that...

https://www.etymotic.com/consumer/earphones.html

I don't use them when I activate with Cesar (K1TNT) as he complains I can never hear him when he talks to me!

73,
Scott - W1ZU

> On Sep 17, 2017, at 5:54 AM, Joe Street racingtheclouds@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> I like the 'sparkplug' ear buds made by Koss.
>
>> On Sun, Sep 17, 2017 at 7:03 AM, n1eu.barry@... [AT_Sprint] <AT_Sprint@...m> wrote:
>>
>> Has anybody really researched or ran tests and found/verified a pair of earbuds or IEMs with significantly higher output (i.e., more sensitivity)? I've tried a handful on my MTR5B and still long for another 5-10dB or output. I guess another alternative would be something like a Fiio A1 headphone amp.
>>
>> Thanks & 73,
>> Barry N1EU
>>
>>
>>
>
>

18129. Re: Any unusually loud/sensitive earbuds out there for the MTR?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-17 18:52:29 UTC
From: dl2arl@...
Topic: 18126 Message: 18129

Hi Barry,
not only with your own specimen, the MTR5B seems to have been breed for a lower audio output. All my other MTRs and especially the ATSs are much louder, so loud, I had to place an adjustable attenuator series with the earphones.
The bright side of being less loud is that the MTR5B has a very low noise floor. You can not have both, loud and clear at the same time, can you? This is why, trying to somehow increase the audio yield, either by increasing the amplification or by using special, "sensitive" earbuds, will inherently increase the noise.

Inside the LNR-Box of a MTR5B there is very little room for extensions, but more than none. If I was you, I would NOT look for any special earbuds, most likely fitting other ears better than mine, but try to complement/supplement the audio output of the MTR5B with a filtered amplification. Steven KD1JV has published a vey nice such amplifier meant to be used with the RockMite.

If this does not fit your expectations, take a look at the site of the 4StatesQRP group. They offer a very nice filter with amplification galore to feed a small loudspeaker: NM0S HiPerMite CW Filter. I think it would nicely fit inside the box of a MTR5 if you would take care to build it as slim as possible (for example: mount the big capacitor-cans horizontally, use no socket). I am not affiliated with that gang, although I sure wish I would be, they doing finest things for us to enjoy.

One single drawback: it increases the power consumption of the MTR5, it almost doubles it. Not because the NM0S filter would be wastefull, but because the MTR5 is soo sparing: you can not even put a LED near the MTR5 to read your log without doublefolding it's power consumption.

73, Razvan DL2ARL

18130. NAQCC September Sprint this Wednesday Evening

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-20 01:37:30 UTC
From: Larry W2LJ
Topic: 17111 Message: 18130

The September NAQCC sprint is this coming Wednesday evening local time (September20th, EDT - 8:30-10:30PM, CDT - 7:30-9:30PM, MDT - 6:30-8:30PM, PDT - 5:30-7:30PM), which translates as Thursday, September 21st, 0030 to 0230Z in all cases.

For all the "official" information, please go to:

http://naqcc.info/sprint/sprint201709.html

There you will find all the details as to time, frequencies and other important information.

Certificates: SWA (simple wire antennas) certificates by call area, VE and DX for 1st, 2nd and 3rd place finishers (New!). A Certificate for top score in the GAIN antenna category.

Prizes: Too many to list!! - check out the prizes page on our website.

This is a monthly event that caters to the CW veteran, the CW newcomer, straight key and bug fans. All are welcome to participate (this includes QRO); but you must use QRP power levels to compete for awards.

If you've been hesitant to join in our sprints because you hear other sprints running at breakneck speeds, have no fear. Our sprints are geared to the newcomer to CW and/or contesting. Virtually everyone including the many veteran contesters who regularly enter our sprints will slow down to YOUR speed to help you make your contacts.

If you are not already a member of NAQCC... membership is FREE! Now is your chance to join the largest QRP CW Club in the world!! We currently have 9000+ members in: All 50 States - 9 VE Provinces - 100 Countries. Sign up on the NAQCC website today (http://naqcc.info/) and receive a handsome certificate, with your membership number on it, which is good for life.

Come join us and have a real good time!

72/73 de Larry W2LJ
NAQCC #35

for NAQCC
http://naqcc.info/

18131. Soda Pop Extra Board

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-21 01:58:57 UTC
From: simon.jack68@...
Topic: 18131 Message: 18131

Hi all

Ive been building the extra board that came witb soda pop and am waiting a few more parts to arrive.

In the course of the build Ive noticed a couple of differences bewteen the circuits (apart from the fixes required as set out in the build doc).

1. There is capacity to put two feedback components between pin 1 and pin 8 of the lm386. I am wondering what to try here.

2. There are a couple of caps and resistors missing from the first opamp input. Presume this is audio filtering that may have something to do with first diference noted above.

3. The biasing on Q11 is different. R29 is missing.

And I have another general query regarding selecting the bfo crystal frequency. Is there a frequency relative to the filter crystal frequencies that i should aim for in order to put bfo in the filter passband? Say within 200hz or a between 200 and 300hz higher or lower?

73

Simon VK3ELH

18132. ATS-3A 20M board power too low

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-21 17:55:58 UTC
From: mbmadden@...
Topic: 18132 Message: 18132

Hi,

I have an ATS-3A with too-low power on 20M. 2.5W out with 12V. Get 5W on 12V with all other band boards.

LF3 has 29 turns instead of 30. Assuming CT3 has not been adjusted properly, can it be assumed that the too-low L on LF3 can be compensated by tuning CT3 to a higher C? Understand that the Q will be slightly different. Will a mis-tuned LF3/CT3 explain a lower power output?

Thanks,
Mike

18133. RE: [AT_Sprint] Soda Pop Extra Board

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-21 17:56:32 UTC
From: Steven Weber
Topic: 18131 Message: 18133

Hi all

Ive been building the extra board that came witb soda pop and am waiting a few more parts to arrive.

In the course of the build Ive noticed a couple of differences bewteen the circuits (apart from the fixes required as set out in the build doc).

1. There is capacity to put two feedback components between pin 1 and pin 8 of the lm386. I am wondering what to try here.
I wasn’t sure if I needed more gain there or not, so added those pads. Turns out it wasn’t needed so they were eliminated on the final board layout. Simply putting a cap between 1 + 8 can result in too much gain, so there is a place to add a series resistor which can be used to control the amount of extra gain provided.

2. There are a couple of caps and resistors missing from the first opamp input. Presume this is audio filtering that may have something to do with first difference noted above.
I added an extra low pass filter before the band pass filter on the final layout, since I had the extra op amp, figured might as well use it and it helped reduce the high frequency hiss.

3. The biasing on Q11 is different. R29 is missing.
R29 was added to make the AGC kick is at a lower level.

And I have another general query regarding selecting the bfo crystal frequency. Is there a frequency relative to the filter crystal frequencies that i should aim for in order to put bfo in the filter passband? Say within 200hz or a between 200 and 300hz higher or lower?

The BFO is set higher then the pass band of the filter. It doesn’t really matter how well matched to the other xtals in the filter it is, since the trimmer has enough range to pull it the required 600 Hz or so higher then the pass band of the filter.

73

Simon VK3ELH

18134. Re: [AT_Sprint] ATS-3A 20M board power too low

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-22 13:28:57 UTC
From: Steven Weber
Topic: 18132 Message: 18134

LF3/CT3 tune the receiver input and has nothing to do with power output.

LF1, the input side of the transmitter filter had the most influence on power output. Low power output generally means too much inductance at LF1. Try speading the turns more evenly around the core or removing a turn.

Steve KD1JV
Hi,

I have an ATS-3A with too-low power on 20M. 2.5W out with 12V. Get 5W on 12V with all other band boards.

LF3 has 29 turns instead of 30. Assuming CT3 has not been adjusted properly, can it be assumed that the too-low L on LF3 can be compensated by tuning CT3 to a higher C? Understand that the Q will be slightly different. Will a mis-tuned LF3/CT3 explain a lower power output?

Thanks,

Mike

18135. Re: [AT_Sprint] ATS-3A 20M board power too low

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-22 18:15:16 UTC
From: mbmadden@...
Topic: 18132 Message: 18135

Thank you Steve, I will check LF1. Regarding LF3/CT3 on the receive path, if LF3 has 29 turns instead of 30, can I assume that this will be mostly calibrated out when peaking CT3? Aside from a small change in the Q. If my arithmetic is right, it should result in an L that is roughly 6.5% low, which should be within the range of the CT3 to compensate.

Thanks,
Mike

18136. RE: [AT_Sprint] ATS-3A 20M board power too low

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-23 13:14:45 UTC
From: Fred Maas
Topic: 18132 Message: 18136

When I had an ATS3, I changed the number of turns by one and got over 5 watts out.

73, Fred KT5X (aka WS0TA)

Hi,

I have an ATS-3A with too-low power on 20M. 2.5W out with 12V. Get 5W on 12V with all other band boards.

LF3 has 29 turns instead of 30. Assuming CT3 has not been adjusted properly, can it be assumed that the too-low L on LF3 can be compensated by tuning CT3 to a higher C? Understand that the Q will be slightly different. Will a mis-tuned LF3/CT3 explain a lower power output?

Thanks,

Mike

18137. RE: [AT_Sprint] ATS-3A 20M board power too low

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-23 14:05:05 UTC
From: Mike Olbrisch
Topic: 18132 Message: 18137

Fred, what happened to your ATS-3? More importantly, did you find something smaller and lighter?

Vy73 -- Mike -- KD5KC.

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Saturday, September 23, 2017 07:15
To: AT_Sprint@yahoogroups.com
Subject: RE: [AT_Sprint] ATS-3A 20M board power too low

When I had an ATS3, I changed the number of turns by one and got over 5 watts out.

73, Fred KT5X (aka WS0TA)

Hi,
I have an ATS-3A with too-low power on 20M. 2.5W out with 12V. Get 5W on 12V with all other band boards.
LF3 has 29 turns instead of 30. Assuming CT3 has not been adjusted properly, can it be assumed that the too-low L on LF3 can be compensated by tuning CT3 to a higher C?
Understand that the Q will be slightly different. Will a mis-tuned LF3/CT3 explain a lower power output?
Thanks,
Mike

18138. MTR3B/5B Receiver Offset Frequency?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-25 11:35:53 UTC
From: Martin Hepp
Topic: 18119 Message: 18138

Dear all:

I am building a zero-beat indicator similar to this one:

http://qrpguys.apps-1and1.com/wp-content/uploads/2017/06/zero_061117.pdf

(It's clear that due to the 50 Hz increments of the MTR, one cannot always get an exact zero beat, but I want to try how useful such a visual aid will be)

Now, in order to calibrate that, I need to know the exact receiver offset frequency of the MTR. I could measure it, but since the MTR has a uC-controlled DDS, I thought that maybe someone knows the receiver offset frequency by heart from looking at the sourcecode of the the software or similar.

Any help will be appreciated!

73 de Martin, DK3IT

18139. Tiny SWR indicator for MTRs and other QRP radios

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-25 11:38:36 UTC
From: Martin Hepp
Topic: 18119 Message: 18139

Dear all:

FYI: I designed a very small SWR indicator that goes nicely with any MTR etc. QRP radio.

The final PCB is just 20.98x14.38 mm.

I released it as Open Hardware, for details, see here:

https://github.com/mfhepp/tinyswr

73 de Martin, DK3IT

18140. Re: [AT_Sprint] Tiny SWR indicator for MTRs and other QRP radios

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-25 13:19:26 UTC
From: Joe Street
Topic: 18119 Message: 18140

Nice idea and very well documented!

On Mon, Sep 25, 2017 at 7:38 AM, Martin Hepp mfhepp@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> Dear all:
>
> FYI: I designed a very small SWR indicator that goes nicely with any MTR
> etc. QRP radio.
>
> The final PCB is just 20.98x14.38 mm.
>
> I released it as Open Hardware, for details, see here:
>
> https://github.com/mfhepp/tinyswr
>
> 73 de Martin, DK3IT
>
>
>

18141. RE: [AT_Sprint] MTR3B/5B Receiver Offset Frequency?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-25 20:37:36 UTC
From: Steven Weber
Topic: 18119 Message: 18141

The CW note peaks at about 600 Hz.

Dear all:

I am building a zero-beat indicator similar to this one:

http://qrpguys.apps-1and1.com/wp-content/uploads/2017/06/zero_061117.pdf

(It's clear that due to the 50 Hz increments of the MTR, one cannot always get an exact zero beat, but I want to try how useful such a visual aid will be)

Now, in order to calibrate that, I need to know the exact receiver offset frequency of the MTR. I could measure it, but since the MTR has a uC-controlled DDS, I thought that maybe someone knows the receiver offset frequency by heart from looking at the sourcecode of the the software or similar.

Any help will be appreciated!

73 de Martin, DK3IT

18142. Re: [AT_Sprint] ATS-3A 20M board power too low

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-25 21:53:31 UTC
From: mbmadden@...
Topic: 18132 Message: 18142

Thanks, Steve. Rewinding LF1 did indeed bring the power output from 2.5W to between 4W and 5W.

Is it worth it to rewind LF3 to correct a number of turns that is 29 instead of 30? CT3 has been peaked for maximum apparent received signal amplitude.

73
Mike

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :

☐ LF3/CT3 tune the receiver input and has nothing to do with power output.

LF1, the input side of the transmitter filter had the most influence on power output. Low power output generally means too much inductance at LF1. Try speading the turns more evenly around the core or removing a turn.

Steve KD1JV
Hi,
I have an ATS-3A with too-low power on 20M. 2.5W out with 12V. Get 5W on 12V with all other band boards.

LF3 has 29 turns instead of 30. Assuming CT3 has not been adjusted properly, can it be assumed that the too-low L on LF3 can be compensated by tuning CT3 to a higher C? Understand that the Q will be slightly different. Will a mis-tuned LF3/CT3 explain a lower power output?

Thanks,
Mike

18143. Re: [AT_Sprint] MTR3B/5B Receiver Offset Frequency?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-25 23:45:25 UTC
From: Michael Lloyd
Topic: 18119 Message: 18143

The LMC567 is a low-power tone decoder. It's an analog device with a phase detector and VCO. They form a PLL not a DDS. Rather than regurgitate the spec sheet here's a link to the datasheet;

http://www.ti.com/lit/ds/symlink/lmc567.pdf

Things get interesting starting at page and closer to the application we are interested in on page 10. I saw a note about how to select bandwidth with C2 (which is the loop filter circuit) is on page 11

> Steven Weber steve.kd1jv@... [AT_Sprint]
> <mailto:AT_Sprint@yahoogroups.com>
> September 25, 2017 at 3:37 PM
>
> The CW note peaks at about 600 Hz.
>
> Dear all:
>
> I am building a zero-beat indicator similar to this one:
>
>
> http://qrpguys.apps-1and1.com/wp-content/uploads/2017/06/zero_061117.pdf
>
> (It's clear that due to the 50 Hz increments of the MTR, one cannot
> always get an exact zero beat, but I want to try how useful such a
> visual aid will be)
>
> Now, in order to calibrate that, I need to know the exact receiver
> offset frequency of the MTR. I could measure it, but since the MTR has
> a uC-controlled DDS, I thought that maybe someone knows the receiver
> offset frequency by heart from looking at the sourcecode of the the
> software or similar.
>
> Any help will be appreciated!
>
> 73 de Martin, DK3IT
>
>

18144. RE: [AT_Sprint] ATS-3A 20M board power too low

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-27 13:40:56 UTC
From: Steven Weber
Topic: 18132 Message: 18144
Attachments: 1 described; binary payloads are missing from this source WARC

Since it peaks okay, no need to change it.
KD1JV

Thanks, Steve. Rewinding LF1 did indeed bring the power output from 2.5W to between 4W and 5W.

Is it worth it to rewind LF3 to correct a number of turns that is 29 instead of 30? CT3 has been peaked for maximum apparent received signal amplitude.

73
Mike

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :
☐
LF3/CT3 tune the receiver input and has nothing to do with power output.

LF1, the input side of the transmitter filter had the most influence on power output. Low power output generally means too much inductance at LF1. Try speading the turns more evenly around the core or removing a turn.

Steve KD1JV
Hi,
I have an ATS-3A with too-low power on 20M. 2.5W out with 12V. Get 5W on 12V with all other band boards.
LF3 has 29 turns instead of 30. Assuming CT3 has not been adjusted properly, can it be assumed that the too-low L on LF3 can be compensated by tuning CT3 to a higher C?
 Understand that the Q will be slightly different. Will a mis-tuned LF3/CT3 explain a lower power output?
Thanks,
Mike

18145. RE: [AT_Sprint] ATS-3A 20M board power too low

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-27 20:50:29 UTC
From: dl2arl@...
Topic: 18132 Message: 18145

..peaks alright, but I would take care to have it peak twice for a full turn of CT3. Otherwise it could be a false peak at the end of the variable capacitor and not a resonant peak like it should. This issue has been discussed in this group a good number of times.

Have fun es 73, Razvan DL2ARL

18146. ATS4B

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-27 20:51:39 UTC
From: w0cca@...
Topic: 16384 Message: 18146

I have my complete ATS4B SOTA setup for sale on QTH.com. Search under SOTA.
Cap
W0CCA

18147. New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-29 17:04:35 UTC
From: steve.kd1jv@...
Topic: 18147 Message: 18147

I just ordered proto boards for a SSB reversion of the Soda Pop, tentatively named "slop bucket".

It's based on the Survivor SSB rig design, but with a Si5351 VFO and of course, mostly SMT parts. It is slightly bigger then the soda pop board, but not by much.(92 x 100 mm). It includes a VOX circuit so it can be connected directly to a sound card for digital mode operation. I decided not to board mount the jacks this time for two reasons. 1) to keep the board smaller then 100 x 100 mm and 2) it allows more flexibility of enclosure choices.

My plan is to initially offer just 50 kits, all of the same band and only to US address. I know this will disappoint a lot of people, but it makes my life easier. ETA is before Christmas.

The main reason for offering just one band is because the IF frequency is different depending on the band to keep unwanted mixer products well away from the operating frequency.

A 20 M version will use a 9 MHz IF and a 40M version will use a 11.059 MHz IF. The 20M version will likely require a more expensive PA then the 40M version to get decent power output and that could impact the price of the kit, but probably not by too much. The price will be in the ball park of the Soda Pop kit.

It will be a couple of weeks before I get the proto boards and see if this even works!

18148. Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-29 17:27:37 UTC
From: mst72481@...
Topic: 18147 Message: 18148

Ooh, a Weber single bander that is digi-ready? I'll just park myself here and keep hitting the refresh button til Christmas!

18149. New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-29 18:06:34 UTC
From: AT_Sprint@yahoogroups.com
Topic: 18147 Message: 18149

[AT_Sprint] An existing poll has been modified, check it out.
Enter your vote now! https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/5760712

Which band?
Created by: kd1jv

1. 75 meters https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/5760712#29964723
(added by: ohwenzelph . September 29, 2017)

Thanks!

18150. Re: [AT_Sprint] New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-29 18:39:40 UTC
From: Bill Richardson
Topic: 18147 Message: 18150

75 meters would be great!

Sent from my iPhone

> On Sep 29, 2017, at 2:06 PM, AT_Sprint@yahoogroups.com wrote:
>
> [AT_Sprint] An existing poll has been modified, check it out. Enter your vote now!
> Which band?
> Created by: kd1jv
> 75 meters (added by: ohwenzelph . September 29, 2017)
>
>
> Thanks!
>
>

18151. Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-29 23:22:38 UTC
From: ae5x@...
Topic: 18147 Message: 18151

A 75m version of the kit would allow its use on the new 630m band via a popular transverter:
https://ae5x.blogspot.com/2017/06/630m-kit-completed-tested.html
https://ae5x.blogspot.com/2017/06/630m-kit-completed-tested.html

So essentially it would be a 2-band rig...

73,

John AE5X

18152. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 00:09:08 UTC
From: <mike-2007@...>
Topic: 18147 Message: 18152

Just my opinion, I think 30m would be a great choice. It is a good compromise between the day-time operation of 20m and the night-time operation of 40m. There's pretty much something going on there on 30m day or night, free from contests, nice CW and Digital areas too. I considered getting a 30m radio for my grandson - until someone mentioned to me that a TECH is only allowed CW on 80m-40m-15m-10m..... So yeah - I vote for 30m. Considering our present sunspot numbers, 30m might be the better choice out of them all for a single band radio.

Vy73 - Mike - KD5KC.

18153. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 02:21:29 UTC
From: MOB
Topic: 18147 Message: 18153

My vote also goes for 30m.

73,

Michael KD4SGN

On 9/29/2017 8:09 PM, mike-2007@... [AT_Sprint] wrote:
> Just my opinion, I think 30m would be a great choice. It is a good compromise between the day-time operation of 20m and the night-time operation of 40m. There's pretty much something going on there on 30m day or night, free from contests, nice CW and Digital areas too. I considered getting a 30m radio for my grandson - until someone mentioned to me that a TECH is only allowed CW on 80m-40m-15m-10m..... So yeah - I vote for 30m. Considering our present sunspot numbers, 30m might be the better choice out of them all for a single band radio.
>
> Vy73 - Mike - KD5KC.
>
>
> ------------------------------------
> Posted by: <mike-2007@...>
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> Yahoo Groups Links
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18154. New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 03:13:50 UTC
From: AT_Sprint@yahoogroups.com
Topic: 18147 Message: 18154

[AT_Sprint] An existing poll has been modified, check it out.
Enter your vote now! https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/5760712

Which band?
Created by: kd1jv

1. 30 meters https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/5760712#30005273
(added by: jasonndale@... . September 30, 2017)

Thanks!

18155. Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 05:07:11 UTC
From: ohwenzelph@...
Topic: 18147 Message: 18155

I don't think 30 is a good choice for a SSB rig like the Slop Bucket

18156. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 03:11:50 UTC
From: Shirley Márquez Dúlcey
Topic: 18147 Message: 18156

But isn't 30m a no-voice band? Rather limits the usefulness of a sideband rig, though you could use it for digital modes.

On Sep 29, 2017 10:21 PM, "MOB mob@... [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:

>
>
> My vote also goes for 30m.
>
> 73,
>
> Michael KD4SGN
>
> On 9/29/2017 8:09 PM, mike-2007@... [AT_Sprint] wrote:
> > Just my opinion, I think 30m would be a great choice. It is a good compromise between the day-time operation of 20m and the night-time operation of 40m. There's pretty much something going on there on 30m day or night, free from contests, nice CW and Digital areas too. I considered getting a 30m radio for my grandson - until someone mentioned to me that a TECH is only allowed CW on 80m-40m-15m-10m..... So yeah - I vote for 30m. Considering our present sunspot numbers, 30m might be the better choice out of them all for a single band radio.
> >
> > Vy73 - Mike - KD5KC.
> >
> >
> > ------------------------------------
> > Posted by: <mike-2007@...>
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> > Yahoo Groups Links
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18157. Re: [AT_Sprint] New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 03:25:00 UTC
From: Jason Dale
Topic: 18147 Message: 18157

I added a 30m option to the poll, but am more excited by the prospect of a pocket sized 20m PSK31 box that can clip behind my iPhone (which has an acceptable psk program available).

Thanks, Steve - this is what I've been hoping for for years, and will be hitting the refresh button on my email as well!

— Thanks!
— Jason KG5IZT

> On Sep 29, 2017, at 10:13 PM, AT_Sprint@yahoogroups.com wrote:
>
> [AT_Sprint] An existing poll has been modified, check it out. Enter your vote now!
> Which band?
> Created by: kd1jv
> 30 meters (added by: jasonndale@... . September 30, 2017)
>
>
> Thanks!
>
>

18158. Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 13:08:37 UTC
From: n8xx@...
Topic: 18147 Message: 18158

What's the probability of a 75/20 meter dual band rig? Back in the 50;s (early days for SSB) quite a few folks generated SSB (usually by phasing method) @ 9 MHz IF and either added or subtracted 5 MHz VFO to make a two band rig for 20 or 75 meter operation. This is where the convention of LSB for 75 and USB for 20 meters comes from.

When I was in school @ the University of Denver I tried making one of these using a "command" transmitter (BC-45x .... don't remember which of the series I had). I got it working as far as generating SSB with phasing, but school plus part time job proved too much and I never finished it. In 1955 to 1960 while I was there we only had a home brew 500 watt (input) AM rig, and SSB was in its infancy.

I was following the idea presented in the literature ..... but I remember it was a fairly widely used scheme to easily get 2 bands.

I understand why you desire to make a one band unit for simplicity, so am throwing the idea out for future consideration..

72/73 de n8xx Hg
QRP >99.44% of the time

18159. Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 14:11:25 UTC
From: n1rx@...
Topic: 18147 Message: 18159

I think it is quite interesting (and a bit presumptuous) that people are modifying Steve's poll on HIS next project. After all he is the one who has to design, debug and kit it...

18160. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 14:23:48 UTC
From: Shirley Márquez Dúlcey
Topic: 18147 Message: 18160

They're just opinions. Steve doesn't have to act on them. I am fascinated by the amount of interest in a 30m version even though it can't be used for voice; it shows that there are at least a few QRPers out there who are doing digital modes.

On Sat, Sep 30, 2017 at 10:11 AM, n1rx@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> I think it is quite interesting (and a bit presumptuous) that people are
> modifying Steve's poll on HIS next project. After all he is the one who has
> to design, debug and kit it...
>
>

18161. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 14:36:54 UTC
From: Hank Greeb
Topic: 18147 Message: 18161

It seems that Steve is the only one, as originator, who can (and often does) the modification. I think Polls CAN be set up within a yahoo group by the originator to allow others to modify it, but, since I've never done such a poll, this is only speculation.

I offered a possible "2nd generation" two band idea for 75/20 meters, but realize it is beyond the scope which Steve proposes.

72/73 de n8xx Hg
QRP >99.44% of the tiome

On 9/30/2017 10:11 AM, n1rx@... [AT_Sprint] wrote:
>
>
> I think it is quite interesting (and a bit presumptuous) that people
> are modifying Steve's poll on HIS next project. After all he is the
> one who has to design, debug and kit it...

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18162. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 14:46:35 UTC
From: Hank Greeb
Topic: 18147 Message: 18162

digital modes are rampant on 30 meters, good choice between 40 and 20 meters. Sorta "out of the box" suggestion, but that's what drives creativity.

Also might limit the "inrush" of orders because many might dismiss 30 meters for a 'SSB' rig as an oxymoron.

72/73 de n8xx Hg
QRP >99.44% of the time

On 9/29/2017 11:11 PM, Shirley Márquez Dúlcey mark@...
[AT_Sprint] wrote:
>
>
> But isn't 30m a no-voice band? Rather limits the usefulness of a
> sideband rig, though you could use it for digital modes.
>
> On Sep 29, 2017 10:21 PM, "MOB mob@...
> <mailto:mob@...> [AT_Sprint]" <AT_Sprint@yahoogroups.com
> <mailto:AT_Sprint@yahoogroups.com>> wrote:
>
> My vote also goes for 30m.
>
> 73,
>
> Michael KD4SGN
>
> On 9/29/2017 8:09 PM, mike-2007@...
> <mailto:mike-2007@...> [AT_Sprint] wrote:
> > Just my opinion, I think 30m would be a great choice. It is a
> good compromise between the day-time operation of 20m and the
> night-time operation of 40m. There's pretty much something going
> on there on 30m day or night, free from contests, nice CW and
> Digital areas too. I considered getting a 30m radio for my
> grandson - until someone mentioned to me that a TECH is only
> allowed CW on 80m-40m-15m-10m..... So yeah - I vote for 30m.
> Considering our present sunspot numbers, 30m might be the better
> choice out of them all for a single band radio.
> >
> > Vy73 - Mike - KD5KC.
>

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18163. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 14:47:38 UTC
From: <mike-2007@...>
Topic: 18147 Message: 18163

Yeah - I just completed WAS in FT8 mode a few weeks ago. 47 states on 20m, 2 states on 40m and 1 state on 30m. But I see the potential in 30m over the next several years. BTW - not every country is limited to no SSB on 30m, and I still have hopes that we'll get an SSB portion in 30m sometime down the road. after all, if we can share 5 channels on 60m.....

Vy73 - Mike - KD5KC.

---- "Shirley Márquez Dúlcey mark@... [AT_Sprint]" <AT_Sprint@yahoogroups.com> wrote:
> They're just opinions. Steve doesn't have to act on them. I am fascinated
> by the amount of interest in a 30m version even though it can't be used for
> voice; it shows that there are at least a few QRPers out there who are
> doing digital modes.
>
>
> On Sat, Sep 30, 2017 at 10:11 AM, n1rx@... [AT_Sprint] <
> AT_Sprint@yahoogroups.com> wrote:
>
> > >
> > >
> > > I think it is quite interesting (and a bit presumptuous) that people are
> > > modifying Steve's poll on HIS next project. After all he is the one who has
> > > to design, debug and kit it...
> > >
> > >

18164. RE: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 15:36:46 UTC
From: Steven Weber
Topic: 18147 Message: 18164

Multi-band is out of the question due to the complexity of switching filters. The SSB rig requires a third filter for the Tx mixer, something the CW rigs don't need if the VFO can directly produce the Tx frequency with no mixing. No matter how the band switching of filters is done - plug in boards, switches, relays, diodes – it increases parts count, cost and size. Single band is SO much easier. Plus the VFO/IF frequency combo can be optimized for that single band.

I don't see much utility in 30M. One problem is simply getting a combination of VFO and IF frequencies which can be effectively be filted out by the Tx mixer output filter. These frequencies (and their harmonics) need to be reasonably well removed from the Tx frequency to be filtered out without a filter with really steep skirts and that's hard to do and keep the bandwidth needed to get consistent power output over the whole band.

The slop bucket rig will have CW mode. However it will be straight key input only (not enough ports for a second keying input) and no narrow CW filtering so an external keyer and narrow CW audio filter will need to be added to make it effective except for casual use.

For now, basically to keep my life simple, only one band will be offered and it looks like that will be 20M. Unless I end up having trouble getting a reasonable power output, then it will be 40. I'm sure there are plenty of you who can figure out how to put it on another band if you really want to.

Steve KD1JV

What's the probability of a 75/20 meter dual band rig? Back in the 50;s (early days for SSB) quite a few folks generated SSB (usually by phasing method) @ 9 MHz IF and either added or subtracted 5 MHz VFO to make a two band rig for 20 or 75 meter operation. This is where the convention of LSB for 75 and USB for 20 meters comes from.

72/73 de n8xx Hg
QRP >99.44% of the time

18165. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 15:48:47 UTC
From: MOB
Topic: 18147 Message: 18165

IMHO, it would be great to have a Weber design optimized for digital modes, not just PSK, but other modes, too. 30m would be a good band choice for that design.

72,

Michael KD4SGN

On 9/30/2017 10:23 AM, Shirley Márquez Dúlcey mark@...
[AT_Sprint] wrote:
>
>
> They're just opinions. Steve doesn't have to act on them. I am
> fascinated by the amount of interest in a 30m version even though it
> can't be used for voice; it shows that there are at least a few QRPers
> out there who are doing digital modes.
>
>

18166. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 16:57:50 UTC
From: Jason Dale
Topic: 18147 Message: 18166

I have to apologize, I didn’t even know voice QRP was a popular thing until this thread, because of the efficiency. I guess I just assumed it was digital with a narrow filter. Shows what I know!

Also, I assumed that because the poll was set up to add new options that adding 30m as an option was ok. But I personally voted for 20m.

I’ll take whatever is offered and be thankful, no matter what’s offered.

— Thanks,
— Jason KG5IZT

> On Sep 30, 2017, at 10:48 AM, MOB mob@mindspring.com [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> IMHO, it would be great to have a Weber design optimized for digital modes, not just PSK, but other modes, too. 30m would be a good band choice for that design.
> 72,
>
> Michael KD4SGN
>
>> On 9/30/2017 10:23 AM, Shirley Márquez Dúlcey mark@... [AT_Sprint] wrote:
>>
>>
>> They're just opinions. Steve doesn't have to act on them. I am fascinated by the amount of interest in a 30m version even though it can't be used for voice; it shows that there are at least a few QRPers out there who are doing digital modes.
>>
>>
>
>

18167. RE: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 20:44:01 UTC
From: Steven Weber
Topic: 18147 Message: 18167

What's the probability of a 75/20 meter dual band rig? Back in the 50;s (early days for SSB) quite a few folks generated SSB (usually by phasing method) @ 9 MHz IF and either added or subtracted 5 MHz VFO to make a two band rig for 20 or 75 meter operation. This is where the convention of LSB for 75 and USB for 20 meters comes from.

It must have used a 5 MHz USB IF and 9 MHz VFO. I always thought it was the other way around, but the math doesn’t work out right that way. A 5.000 to 5.003 MHz signal + 9 MHz = 14.000 to 14.003 or USB. 9 MHz - 5.000 to 5.003 MHz = 4 to 3.997 MHz or LSB.

A 9 MHz IF and 5 MHz VFO produce the same side band when 5 MHz is add or subtracted from 9 MHz . in order to invert the sideband for 20, a 23 MHz VFO would be required.

73, Steve KD1JV

18168. RE: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 20:17:05 UTC
From: Steven Weber
Topic: 18147 Message: 18168

No need to apologize, it’s good to know what people want. It sounds like 30M would be an option worth looking into.

Using a SSB transmitter is the easiest option for producing digital modes and that gives you voice too. Adding the VOX circuits makes the digital interface simpler, since most PC’s don’t have things like RS-232 or parallel ports to use to key the transmitter anymore.

I’m not a good enough a CW op to want to try and do SOTA activations with CW. I’d rather try voice. So, I needed a SSB rig small enough and light enough to lug up the side of a mountain and if I’m going to go through the trouble of making one, I might as well make 50.

Steve KD1JV

I have to apologize, I didn’t even know voice QRP was a popular thing until this thread, because of the efficiency. I guess I just assumed it was digital with a narrow filter.
 Shows what I know!

Also, I assumed that because the poll was set up to add new options that adding 30m as an option was ok. But I personally voted for 20m.

I’ll take whatever is offered and be thankful, no matter what’s offered.

— Thanks,
— Jason KG5IZT

On Sep 30, 2017, at 10:48 AM, MOB mob@mindspring.com [AT_Sprint]
<AT_Sprint@yahoogroups.com> wrote:

IMHO, it would be great to have a Weber design optimized for digital modes, not just PSK, but other modes, too. 30m would be a good band choice for that design.
72,
Michael KD4SGN

On 9/30/2017 10:23 AM, Shirley Márquez Dúlcey mark@... [AT_Sprint] wrote:

They're just opinions. Steve doesn't have to act on them. I am fascinated by the amount of interest in a 30m version even though it can't be used for voice; it shows that there are at least a few QRPers out there who are doing digital modes.

18169. RE: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 21:12:40 UTC
From: jgaffke@...
Topic: 18147 Message: 18169

An analog LC VFO that's stable is tough to do, and often relatively massive. So those old rigs had only one VFO and it covered only one frequency range. The si5351 that Steve is using costs $1 and is in a very small 10 pin package, can generate a VFO at frequencies of 2.5khz to 200mhz, programmable over a two wire i2c bus, stable as a crystal oscillator. So no longer a need to freeze the VFO at 5mhz like the old days.

---In AT_Sprint@yahoogroups.com, <steve.kd1jv@...> wrote :

What's the probability of a 75/20 meter dual band rig? Back in the 50;s (early days for SSB) quite a few folks generated SSB (usually by phasing method) @ 9 MHz IF and either added or subtracted 5 MHz VFO to make a two band rig for 20 or 75 meter operation. This is where the convention of LSB for 75 and USB for 20 meters comes from.

It must have used a 5 MHz USB IF and 9 MHz VFO. I always thought it was the other way around, but the math doesn’t work out right that way. A 5.000 to 5.003 MHz signal + 9 MHz = 14.000 to 14.003 or USB. 9 MHz - 5.000 to 5.003 MHz = 4 to 3.997 MHz or LSB.

A 9 MHz IF and 5 MHz VFO produce the same side band when 5 MHz is add or subtracted from 9 MHz . in order to invert the sideband for 20, a 23 MHz VFO would be required.

73, Steve KD1JV

18170. RE: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-09-30 21:17:02 UTC
From: jgaffke@...
Topic: 18147 Message: 18170

Steve wrote:
> A 9 MHz IF and 5 MHz VFO produce the same side band when 5 MHz is add or subtracted from 9 MHz .
> in order to invert the sideband for 20, a 23 MHz VFO would be required.

If the BFO is being generated by the si5351, flipping sidebands is as easily done by moving the BFO to he other side of the crystal filter. Though the crystal filter may have a steeper side that we would prefer to have facing the BFO.

---In AT_Sprint@yahoogroups.com, <jgaffke@...> wrote :

An analog LC VFO that's stable is tough to do, and often relatively massive. So those old rigs had only one VFO and it covered only one frequency range. The si5351 that Steve is using costs $1 and is in a very small 10 pin package, can generate a VFO at frequencies of 2.5khz to 200mhz, programmable over a two wire i2c bus, stable as a crystal oscillator. So no longer a need to freeze the VFO at 5mhz like the old days.

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It must have used a 5 MHz USB IF and 9 MHz VFO. I always thought it was the other way around, but the math doesn’t work out right that way. A 5.000 to 5.003 MHz signal + 9 MHz = 14.000 to 14.003 or USB. 9 MHz - 5.000 to 5.003 MHz = 4 to 3.997 MHz or LSB.

A 9 MHz IF and 5 MHz VFO produce the same side band when 5 MHz is add or subtracted from 9 MHz . in order to invert the sideband for 20, a 23 MHz VFO would be required.

73, Steve KD1JV

18171. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-01 18:54:02 UTC
From: Hank Greeb
Topic: 18147 Message: 18171

Thanks for doing he math for me. I searched the QST archives for a reference, but couldn't find it. I know I used some form of "Command Set" transmitter for the VFO and Sideband generator, got it working to generate sideband (as you figured out, on 5 MHz) but never got it as a real transmitter because of school and part time work load.

It might be difficult to notch out the 5 MHz side band from a 4 MHz output? The one reference I did find in that time range was a much more complicated phasing sideband rig. It reported only -40 dB rejection of the opposite sideband, which is far from current specs, so maybe technology of that day was much poorer than now a daze?

Anyway, any of the ideas you and other suggested are fine with me. Gopher it, OM Gofer it!

72/73 de n8xx hg
QRP >99.44% of the time

On 9/30/2017 4:44 PM, Steven Weber steve.kd1jv@... [AT_Sprint] wrote:

> What's the probability of a 75/20 meter dual band rig? Back in the
> 50;s (early days for SSB) quite a few folks generated SSB (usually by
> phasing method) @ 9 MHz IF and either added or subtracted 5 MHz VFO to
> make a two band rig for 20 or 75 meter operation. This is where the
> convention of LSB for 75 and USB for 20 meters comes from.
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> It must have used a 5 MHz USB IF and 9 MHz VFO. I always thought it
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> MHz - 5.000 to 5.003 MHz = 4 to 3.997 MHz or LSB.
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> A 9 MHz IF and 5 MHz VFO produce the same side band when 5 MHz is add
> or subtracted from 9 MHz . in order to invert the sideband for 20, a
> 23 MHz VFO would be required.
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> 73, Steve KD1JV
>

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18172. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-01 19:13:06 UTC
From: Shirley Márquez Dúlcey
Topic: 18147 Message: 18172

40dB opposite sideband rejection was par for the course for an analog phasing design. Amplitude matching and phase balance are the limiting factors. That's one of the reasons that crystal filters took over. Phasing came back with DSP, where you can implement much better filters and thus achieve better rejection.

On Sun, Oct 1, 2017 at 2:54 PM, Hank Greeb n8xx@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Thanks for doing he math for me. I searched the QST archives for a
> reference, but couldn't find it. I know I used some form of "Command Set"
> transmitter for the VFO and Sideband generator, got it working to generate
> sideband (as you figured out, on 5 MHz) but never got it as a real
> transmitter because of school and part time work load.
>
> It might be difficult to notch out the 5 MHz side band from a 4 MHz
> output? The one reference I did find in that time range was a much more
> complicated phasing sideband rig. It reported only -40 dB rejection of the
> opposite sideband, which is far from current specs, so maybe technology of
> that day was much poorer than now a daze?
>
> Anyway, any of the ideas you and other suggested are fine with me. Gopher
> it, OM Gofer it!
>
> 72/73 de n8xx hg
> QRP >99.44% of the time
>
> On 9/30/2017 4:44 PM, Steven Weber steve.kd1jv@... [AT_Sprint]
> wrote:
>
> What's the probability of a 75/20 meter dual band rig? Back in the 50;s
> (early days for SSB) quite a few folks generated SSB (usually by phasing
> method) @ 9 MHz IF and either added or subtracted 5 MHz VFO to make a two
> band rig for 20 or 75 meter operation. This is where the convention of LSB
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>
> It must have used a 5 MHz USB IF and 9 MHz VFO. I always thought it was
> the other way around, but the math doesn’t work out right that way. A 5.000
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> A 9 MHz IF and 5 MHz VFO produce the same side band when 5 MHz is add or
> subtracted from 9 MHz . in order to invert the sideband for 20, a 23 MHz

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> 73, Steve KD1JV
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>
> <http://www.avg.com/email-signature?utm_medium=email&utm_source=link&utm_campaign=sig-email&utm_content=emailclient> Virus-free.
> www.avg.com
> <http://www.avg.com/email-signature?utm_medium=email&utm_source=link&utm_campaign=sig-email&utm_content=emailclient>
> <#m_8495458188895701648_DAB4FAD8-2DD7-40BB-A1B8-4E2AA1F9FDF2>
>
>
>

18173. Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-02 05:37:20 UTC
From: mst72481@...
Topic: 18147 Message: 18173

"I’m not a good enough a CW op to want to try and do SOTA activations with CW."

So the guy designing, kitting, and selling some of the most epic CW SOTA radios isn't interested in CW SOTA. Haha, that made my night :)

18174. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-02 14:24:42 UTC
From: wohlsson .
Topic: 18147 Message: 18174

I buy all his kits and never do SOTA.....and yes looking forward to a SSB/DIGITAL rigs of his...20m looks perfect.

Bill.....WA8BDA

On Mon, Oct 2, 2017 at 1:37 AM, mst72481@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> "I’m not a good enough a CW op to want to try and do SOTA activations
> with CW."
>
> So the guy designing, kitting, and selling some of the most epic CW SOTA
> radios isn't interested in CW SOTA. Haha, that made my night :)
>
>
>

18175. Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-02 15:42:32 UTC
From: jgaffke@...
Topic: 18147 Message: 18175

Steve has spent lots of time working CW while backpacking. Hence the AT (Appalachian Trail) of this group's name.

He's just suggesting that when crouched on an icy summit in a howling wind,
a quick phone conversation might be more appropriate than 30 minutes of 15 wpm CW.

And rationalizing why he decided to explore something different this time.

Jerry, KE7ER

18176. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-02 17:08:14 UTC
From: Barry N1EU
Topic: 18147 Message: 18176

I tend to think that working a gaggle of callers from a SOTA summit would be faster on qrp CW than qrp SSB, assuming a degree of cw proficiency and non-frozen keying fingers.

In any event, I hope the new SSB radio has significant tx audio compression built in, a necessity IMHO with qrp ssb.

Barry N1EU

On Mon, Oct 2, 2017 at 11:42 AM, jgaffke@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Steve has spent lots of time working CW while backpacking.
> Hence the AT (Appalachian Trail) of this group's name.
>
> He's just suggesting that when crouched on an icy summit in a howling wind,
> a quick phone conversation might be more appropriate than 30 minutes of 15
> wpm CW.
>
> And rationalizing why he decided to explore something different this time.
>
> Jerry, KE7ER
>
>
>

18177. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-02 23:24:55 UTC
From: Hank Greeb
Topic: 18147 Message: 18177

Reasonable rationale, but one must remember that Single Sideband
Suppressed Carrier (used to be called SSSC, but now called SSB) suffers
quite a few dB in intelligibility compared with CW, and even more when
compared with some of the more recent digital modes. Flapping of jaws
in a howling wind on top of a 14-er can create more noise than
intelligibility.

But, putting together a SSSC rig is probably overdue - since there are
so many who love flapping their jaws instead of learning the code.
Should be a sn*p for someone as competent as Steve. I'm looking forward
to what he dreams up. 8-)

72/73 de n8xx Hg
QRP >99.44% of the time

On 10/2/2017 11:42 AM, jgaffke@... [AT_Sprint] wrote:

> Steve has spent lots of time working CW while backpacking. Hence the
> AT (Appalachian Trail) of this group's name.
>
> He's just suggesting that when crouched on an icy summit in a howling
> wind,a quick phone conversation might be more appropriate than 30
> minutes of 15 wpm CW.
>
> And rationalizing why he decided to explore something different this time.
>
> Jerry, KE7ER

This email has been checked for viruses by AVG.
http://www.avg.com

18178. RE: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-03 07:17:00 UTC
From: <frank.lagaet@...>
Topic: 18147 Message: 18178

Why not combine SSB and CW in 1 TRX ?

72
ON6UU

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: 03 October 2017 01:25
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: New Project!

Reasonable rationale, but one must remember that Single Sideband Suppressed Carrier (used to be called SSSC, but now called SSB) suffers quite a few dB in intelligibility compared with CW, and even more when compared with some of the more recent digital modes. Flapping of jaws in a howling wind on top of a 14-er can create more noise than intelligibility.

But, putting together a SSSC rig is probably overdue - since there are so many who love flapping their jaws instead of learning the code. Should be a sn*p for someone as competent as Steve. I'm looking forward to what he dreams up. 8-)

72/73 de n8xx Hg
QRP >99.44% of the time

On 10/2/2017 11:42 AM, jgaffke@yahoo.com<mailto:jgaffke@yahoo.com> [AT_Sprint] wrote:
Steve has spent lots of time working CW while backpacking. Hence the AT (Appalachian Trail) of this group's name.

He's just suggesting that when crouched on an icy summit in a howling wind,a quick phone conversation might be more appropriate than 30 minutes of 15 wpm CW.

And rationalizing why he decided to explore something different this time.

Jerry, KE7ER

[https://ipmcdn.avast.com/images/icons/icon-envelope-tick-green-avg-v1.png]<http://www.avg.com/email-signature?utm_medium=email&utm_source=link&utm_campaign=sig-email&utm_content=emailclient>

Virus-free. www.avg.com<http://www.avg.com/email-signature?utm_medium=email&utm_source=link&utm_campaign=sig-email&utm_content=emailclient>

18179. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-03 12:23:38 UTC
From: Shirley Márquez Dúlcey
Topic: 18147 Message: 18179

Because there are compromises in that approach.

First, there is the matter of filters. You want a narrow IF filter for CW but a wider one for SSB. Fancy radios have multiple filters that you can switch, but that adds to the size and cost of the radio.

Another big issue is transmitter efficiency. SSB requires the use of linear amplification, which is relatively inefficient. CW can be done with efficient Class E amplifiers. (Class E can also be used for digital modes that do on-off or frequency shift keying.) Transmitting CW with a rig that uses a linear output stage uses a lot more power, which is important when you're designing a radio for field use. That inefficient linear output stage also needs a large and heavy heat sink, another disadvantage in a field radio. (There is a way to use a Class E amplifier for SSB - EER, Envelope Elimination and Restoration - but it requires more complex circuitry and is probably not suitable for a simple QRP rig.)

On Tue, Oct 3, 2017 at 3:17 AM, frank.lagaet@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Why not combine SSB and CW in 1 TRX ?
>
>
>

18180. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-03 13:02:40 UTC
From: Dale Putnam
Topic: 18147 Message: 18180

Check out the Survivor .. at Pac Ant. It is ssb/cw.. qrp. and in a small package.

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Shirley Márquez Dúlcey mark@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Tuesday, October 3, 2017 6:23 AM
To: AT_Sprint@...m
Subject: Re: [AT_Sprint] Re: New Project!

Because there are compromises in that approach.

First, there is the matter of filters. You want a narrow IF filter for CW but a wider one for SSB. Fancy radios have multiple filters that you can switch, but that adds to the size and cost of the radio.

Another big issue is transmitter efficiency. SSB requires the use of linear amplification, which is relatively inefficient. CW can be done with efficient Class E amplifiers. (Class E can also be used for digital modes that do on-off or frequency shift keying.) Transmitting CW with a rig that uses a linear output stage uses a lot more power, which is important when you're designing a radio for field use. That inefficient linear output stage also needs a large and heavy heat sink, another disadvantage in a field radio. (There is a way to use a Class E amplifier for SSB - EER, Envelope Elimination and Restoration - but it requires more complex circuitry and is probably not suitable for a simple QRP rig.)

On Tue, Oct 3, 2017 at 3:17 AM, frank.lagaet@...<mailto:frank.lagaet@...> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

Why not combine SSB and CW in 1 TRX ?

18181. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-03 13:20:52 UTC
From: Shirley Márquez Dúlcey
Topic: 18147 Message: 18181

Some hams have experimented with EER. Notably, one entry in an ARRL homebrew challenge back in 2010 did, successfully building a 50 watt linear amplifier for about $32. (They used one fascinating cheat to keep the cost down: employing scraps of copper house wire as a heat sink material. Wire had zero cost under the challenge rules.) Link: http://p1k.arrl.org/pubs_archive/137696 (ARRL membership required) - or find it in the October 2010 issue in your collection or at a library.

So perhaps the complexity is not excessive...

On Tue, Oct 3, 2017 at 9:02 AM, Dale Putnam daleputnam@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Check out the Survivor .. at Pac Ant. It is ssb/cw.. qrp. and in a small
> package.
>
>
> Have a great day,
> --... ...-- Dale - WC7S in Wy
>
> "Actions speak louder than words"
> 1856 - Abraham Lincoln
>
>
> ------------------------------
> *From:* AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf
> of Shirley Márquez Dúlcey mark@... [AT_Sprint] <
> AT_Sprint@yahoogroups.com>
> *Sent:* Tuesday, October 3, 2017 6:23 AM
> *To:* AT_Sprint@yahoogroups.com
> *Subject:* Re: [AT_Sprint] Re: New Project!
>
>
>
> Because there are compromises in that approach.
>
> First, there is the matter of filters. You want a narrow IF filter for CW
> but a wider one for SSB. Fancy radios have multiple filters that you can
> switch, but that adds to the size and cost of the radio.
>
> Another big issue is transmitter efficiency. SSB requires the use of
> linear amplification, which is relatively inefficient. CW can be done with
> efficient Class E amplifiers. (Class E can also be used for digital modes
> that do on-off or frequency shift keying.) Transmitting CW with a rig that

> uses a linear output stage uses a lot more power, which is important when
> you're designing a radio for field use. That inefficient linear output
> stage also needs a large and heavy heat sink, another disadvantage in a
> field radio. (There is a way to use a Class E amplifier for SSB - EER,
> Envelope Elimination and Restoration - but it requires more complex
> circuitry and is probably not suitable for a simple QRP rig.)
>
> On Tue, Oct 3, 2017 at 3:17 AM, frank.lagaet@... [AT_Sprint] <
> AT_Sprint@yahoogroups.com> wrote:
>
>>
>>
>> Why not combine SSB and CW in 1 TRX ?
>>
>>
>>
>
>

18182. RE: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-03 12:46:08 UTC
From: <frank.lagaet@...>
Topic: 18147 Message: 18182

So it can be done when the power in CW would be limited.
A multi mode trx looks more efficient then a single mode trx to me.

72
Frank ON6UU

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: 03 October 2017 14:24
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Re: New Project!

Because there are compromises in that approach.

First, there is the matter of filters. You want a narrow IF filter for CW but a wider one for SSB. Fancy radios have multiple filters that you can switch, but that adds to the size and cost of the radio.

Another big issue is transmitter efficiency. SSB requires the use of linear amplification, which is relatively inefficient. CW can be done with efficient Class E amplifiers. (Class E can also be used for digital modes that do on-off or frequency shift keying.) Transmitting CW with a rig that uses a linear output stage uses a lot more power, which is important when you're designing a radio for field use. That inefficient linear output stage also needs a large and heavy heat sink, another disadvantage in a field radio. (There is a way to use a Class E amplifier for SSB - EER, Envelope Elimination and Restoration - but it requires more complex circuitry and is probably not suitable for a simple QRP rig.)

On Tue, Oct 3, 2017 at 3:17 AM, frank.lagaet@bt.com<mailto:frank.lagaet@bt.com>
[AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

Why not combine SSB and CW in 1 TRX ?

18183. New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-04 05:19:45 UTC
From: AT_Sprint@yahoogroups.com
Topic: 18147 Message: 18183

[AT_Sprint] An existing poll has been modified, check it out.
Enter your vote now! https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/5760712

Which band?
Created by: kd1jv

1. 17m with SSB https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/5760712#30441730
(added by: tasso_shibusawa . October 4, 2017)

Thanks!

18184. Re: [AT_Sprint] New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-04 19:53:09 UTC
From: Steven Weber
Topic: 18147 Message: 18184

Oh come on now, you want me to have to build one for every band to figure out the values needed?
Which band?
Created by: kd1jv
1.. 17m with SSB (added by: tasso_shibusawa . October 4, 2017)

18185. Re: [AT_Sprint] New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-04 20:09:19 UTC
From: Hank Greeb
Topic: 18147 Message: 18185

Not me. I'll try for one for whatever band you choose, as long as it isn't in the microwave regioon. :)

But, with only 50 initial run, I might sit out and let the "REALLY EAGER BEAVERS" have a go at it first try.

72/73 de n8xx Hg
QRP >99.44% of the time

On 10/4/2017 3:53 PM, 'Steven Weber' steve.kd1jv@... [AT_Sprint] wrote:
> □
>
> Oh come on now, you want me to have to build one for every band to
> figure out the values needed?
>
> Which band?
> Created by: kd1jv
>
> 1. 17m with SSB
> <https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/5760712#30441730>
> (added by: tasso_shibusawa October 4, 2017)
>

This email has been checked for viruses by AVG.
http://www.avg.com

18186. Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-05 02:59:11 UTC
From: John Roland
Topic: 18147 Message: 18186

I think 150 is a closer to initial demand than 50. Look at the line-up
for Hans Summers new rig. Maybe a bare board with Digikey BOM option for
those not eager enough to stay up all night in anticipation of the sale?
/John W7SWB

18187. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-05 18:47:48 UTC
From: colin.evans2@...
Topic: 17715 Message: 18187

I'm wondering if somebody could help me please.

My Soda Pop kit was one of the ones that went AWOL in Australia. I was kindly given one of the 'coaster' boards to build via some friends.

I started building the 'coaster' board a couple of weeks ago and I thought all was going very well. I discovered that whilst the display I obtained has the correct pin out, the LEDs need more current than the 3k9 resistors will provide to have anywhere near enough brightness to read. The CAL mode worked/works as expected but in normal mode, the rig just locks up with any push of a button. At first I suspected a hardware issue possibly caused by reducing the display resistors to 1k.

I happily managed to obtain a replacement full Soda Pop kit last week, so I tried the ATmega328 supplied by Steven in my 'coaster' Pop - all worked as intended.

I've tried various versions of the Arduino IDE but each time I've uploaded my sketch into my ATmega chip, the chip doesn't work as expected.

I'm not a code expert by any stretch of the imagination but I have used Arduino before for home brew projects.

I'm obviously seeing the same problem as mentioned further up the thread, does somebody please have a fixed version of Steven's sketch? I'm struggling to work out which variables need to be declared as volatile.

I did think about cloning the working ATMEGA chip - apparently it's possible to do.

Meanwhile work continues on the Genuine 'Pop :-)

Thanks and 73, Colin

18188. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-05 18:59:10 UTC
From: Camil Staps
Topic: 17715 Message: 18188
Attachments: 1 described; binary payloads are missing from this source WARC

If I remember correctly, the problem mentioned before was with my
version of the source code, not the original. My version should work
al-right now on any version of the Arduino IDE:
https://github.com/camilstaps/SODA-POP-source

If you want to get the original working, the volatile keyword needs to
be added to those variables that are modified from the ISR
(TIMER1_SERVICE_ROUTINE): tcount, ktimer, ktimer2, keyerControl,
digit_counter, digit4, sw_inputs, c.

If that still doesn't work, you could try adding it to all variables.
The volatile keyword disables a number of optimisations, so ideally it
is added to as few variables as possible, but if you don't experience
any speed issues, why not...

73,
Camil, PA5ET

On 2017-10-05 08:47 PM, colin.evans2@... [AT_Sprint]
<AT_Sprint@yahoogroups.com> wrote:
> I'm wondering if somebody could help me please.
>
> My Soda Pop kit was one of the ones that went AWOL in Australia. I was kindly given one of the 'coaster' boards to build via some friends.
>
> I started building the 'coaster' board a couple of weeks ago and I thought all was going very well. I discovered that whilst the display I obtained has the correct pin out, the LEDs need more current than the 3k9 resistors will provide to have anywhere near enough brightness to read. The CAL mode worked/works as expected but in normal mode, the rig just locks up with any push of a button. At first I suspected a hardware issue possibly caused by reducing the display resistors to 1k.
>
> I happily managed to obtain a replacement full Soda Pop kit last week, so I tried the ATmega328 supplied by Steven in my 'coaster' Pop - all worked as intended.
>
> I've tried various versions of the Arduino IDE but each time I've uploaded my sketch into my ATmega chip, the chip doesn't work as expected.
>
> I'm not a code expert by any stretch of the imagination but I have used Arduino before for home brew projects.
>
> I'm obviously seeing the same problem as mentioned further up the thread, does somebody please have a fixed version of Steven's sketch? I'm struggling to work out which variables need to be declared as volatile.
>

> I did think about cloning the working ATMEGA chip - apparently it's possible to do.
>
> Meanwhile work continues on the Genuine 'Pop :-)
>
> Thanks and 73, Colin
>

18189. Re: SODA POP source code (+ rotary encoder fix)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-05 20:11:01 UTC
From: colin.evans2@...
Topic: 17715 Message: 18189

OK, Thank you Camil, I'll give your suggestion a try.

I refer to Gunnar's post from 13th June. It's Steve's code that I'm trying to get working. The sketches compile and upload OK and the calibration routines work FB, but then everything stops.

I was initially over the moon when I did the smoke test and the rig seemed to work, especially as I burnt the bootloader on the virgin chip. I been working on getting the code working over a few days now and I'm not getting very far!

I'll give your code a try once I get a working, basic sketch to fall back on.

73, Colin

18190. New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-05 20:56:39 UTC
From: AT_Sprint@yahoogroups.com
Topic: 18147 Message: 18190

[AT_Sprint] An existing poll has been modified, check it out.
Enter your vote now! https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/5760712

Which band?
Created by: kd1jv

1. WARC would make sense: imagine beying on a sweet spot of your own choice you would love to activate, but it is sunday and everybody is contesting hard. Nobody will hear your SSB-QRP squeek among those Kilowatt crocodiles distributing 59123. Not so on a WARC band. https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/5760712#30612373 (added by: dl2arl . October 5, 2017)

Thanks!

18191. Re: [AT_Sprint] New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-05 21:44:12 UTC
From: Hank Greeb
Topic: 18147 Message: 18191

I think we should add another, but I don't want to do it.

* Whatever Steve comes up with is fine with me.

Note, WARC bands are fine, but 17 meters often is NOT open enough to be
useful for 5 watts or less output power.
30 is fine, but there are many who want to flap their jaws and Stupid
Slop Bucket (SSB) is not allowed within the Untied States by the
Friendly Candy Company.

72/73 de n8xx Hg
QRP >99.44% of the time

On 10/5/2017 4:56 PM, AT_Sprint@yahoogroups.com wrote:

> [AT_Sprint] An existing poll has been modified, check it out. Enter
> your vote now!
> <https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/5760712>
> Which band?
> Created by: kd1jv
>
> 1. WARC would make sense: imagine beying on a sweet spot of your own
> choice you would love to activate, but it is sunday and everybody
> is contesting hard. Nobody will hear your SSB-QRP squeek among
> those Kilowatt crocodiles distributing 59123. Not so on a WARC
> band.
> <https://groups.yahoo.com/neo/groups/AT_Sprint/polls/poll/5760712#30612373>
> (added by: dl2arl . October 5, 2017)
>

This email has been checked for viruses by AVG.
http://www.avg.com

18192. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-05 22:07:20 UTC
From: colin.evans2@...
Topic: 17715 Message: 18192
Attachments: 3 described; binary payloads are missing from this source WARC

:-)

Thank you Camil, my Soda Pop Coaster is now a functioning radio!

I'm getting 5.5 watts out on 40m at 12volts and all the functions are now working.

It's definitely been a challenge to get this rig running but I'm pretty proud that I managed it in the end. Next I need to fInish the Soda Pop proper (30m) and fabricate some custom cases.

73, Colin
M1BUU

18193. MTR-5B reviewed in November 2017 QST

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-07 01:47:12 UTC
From: Shirley Márquez Dúlcey
Topic: 18193 Message: 18193

The title says it all. ARRL members can log into the ARRL site and read it online now, or wait a while until the printed magazine arrives. The radio they reviewed is the LNR Precision version, not the kit, but performance should be similar.

I'll just quote the final sentence to avoid stomping too hard on the ARRL's copyright... "Combining excellent portabillity, performance, efficiency, and features, the MTR-5B makes it easy to bring your QRP CW HF operations into the field." Techies will also be happy to learn that it passed all the lab tests with flying colors.

18194. Soda Pops up and running.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-09 19:38:12 UTC
From: colin.evans2@...
Topic: 18194 Message: 18194
Attachments: 4 described; binary payloads are missing from this source WARC

Over the past couple of weeks, I've been building my Soda Pop rigs. I built the Coaster board for 40m and the kitted board for 30m.

The only issues that I had were a little glitch with the Arduino sketch for the Coaster board (something to do with volatile varaibles) and three missing 2N7002 transistors from the proper kit. Unfortunately, I was just one transistor short, as I had ordered a round qty 10 for the Coaster (8 needed per board). 2N7002 transistors are quite easy to come by thankfully.

I don't have a permanent shack or antenna - I'm a SOTA op! I do have a picnic bench outside and a space to just about squeeze in a 40m SOTA dipole antenna. Yesterday I tried out the Coaster rig, built for 40m, I found the receiver to be excellent, I'm extremely impressed. I worked TM5G and DM4KM/P, both solid QSO's.

Today I calibrated the kitted Soda Pop and gave it a try on air, again from the picnic bench. I built the Rev A board for 30m. Again, I found the rig to be excellent and I had a nice QSO with Jürgen, DF3OL near to Hanover.

I really enjoyed building these boards, especially the Coaster! Next I'm going to fold up some cases from sheet metal. I've noticed that the Coaster board is slightly smaller than the kitted board, so the provided template won't be applicable for that one.

73, Colin, M1BUU

18195. Re: [AT_Sprint] Soda Pops up and running.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-09 22:40:19 UTC
From: Steve Saslow
Topic: 18194 Message: 18195

Great news, Colin!
Can you or anyone please refer me to someone who can go over my completed SP 40m, as the audio output seems low, needs to have vol control=max nearly always, while similar rigs don't...?
Are there certain connections I could/should double-check, myself? Re-heat to be sure no poor solder joints? - At least, the entire audio path? I built my kit point-soldering...
Thank you! Apparently, I do not have (RX) audio gain to spare!
- Steve Saslow k7ew

Sent from my iPhone

On Oct 9, 2017, at 12:40 PM, colin.evans2@gmail.com<mailto:colin.evans2@gmail.com> [AT_Sprint] <AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

Over the past couple of weeks, I've been building my Soda Pop rigs. I built the Coaster board for 40m and the kitted board for 30m.

The only issues that I had were a little glitch with the Arduino sketch for the Coaster board (something to do with volatile varaibles) and three missing 2N7002 transistors from the proper kit. Unfortunately, I was just one transistor short, as I had ordered a round qty 10 for the Coaster (8 needed per board). 2N7002 transistors are quite easy to come by thankfully.

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Today I calibrated the kitted Soda Pop and gave it a try on air, again from the picnic bench. I built the Rev A board for 30m. Again, I found the rig to be excellent and I had a nice QSO with Jürgen, DF3OL near to Hanover.

I really enjoyed building these boards, especially the Coaster! Next I'm going to fold up some cases from sheet metal. I've noticed that the Coaster board is slightly smaller than the kitted board, so the provided template won't be applicable for that one.

73, Colin, M1BUU

<20171008_153153.jpg>
<20171009_163456.jpg>
<20171006_231721.jpg>
<20171006_164131-1.jpg>

18196. NAQCC October Sprint this Tuesday Evening

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-09 22:44:46 UTC
From: Larry W2LJ
Topic: 18196 Message: 18196

The October NAQCC sprint is this coming Tuesday evening local time (October 10th, EDT - 8:30-10:30PM, CDT - 7:30-9:30PM, MDT - 6:30-8:30PM, PDT - 5:30-7:30PM), which translates as Wednesday, October 11th, 0030 to 0230Z in all cases.

For all the "official" information, please go to:

http://naqcc.info/sprint/sprint201710.html

There you will find all the details as to time, frequencies and other important information.

Certificates: SWA (simple wire antennas) certificates by call area, VE and DX for 1st, 2nd and 3rd place finishers (New!). A Certificate for top score in the GAIN antenna category.

Prizes: Too many to list!! - check out the prizes page on our website.

This is a monthly event that caters to the CW veteran, the CW newcomer, straight key and bug fans. All are welcome to participate (this includes QRO); but you must use QRP power levels to compete for awards.

If you've been hesitant to join in our sprints because you hear other sprints running at breakneck speeds, have no fear. Our sprints are geared to the newcomer to CW and/or contesting. Virtually everyone including the many veteran contesters who regularly enter our sprints will slow down to YOUR speed to help you make your contacts.

If you are not already a member of NAQCC... membership is FREE! Now is your chance to join the largest QRP CW Club in the world!! We currently have 9000+ members in: All 50 States - 9 VE Provinces - 100 Countries. Sign up on the NAQCC website today (http://naqcc.info/) and receive a handsome certificate, with your membership number on it, which is good for life.

Come join us and have a real good time, and hunt for the NAQCC Anniversary stations, too!

72/73 de Larry W2LJ
NAQCC #35

for NAQCC
http://naqcc.info/

18197. Selling my MTR

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-10 19:33:24 UTC
From: camqrp@...
Topic: 18197 Message: 18197

Lots of little radios gathering dust here, so I thought I'd pass on this MTR to a new home. This is an original 2-band kit version, covering 20 and 40 meters. It's mounted in a swap meet box, just big enough to hold the radio and a 3-pack of cell phone LiPo batteries. The battery pack includes a protection/charge controller board and is good for 1500 mAH. I used this rig in the latest Skeeter Hunt, four hours of operating with plenty of transmit time and it barely made a dent in the batteries. Asking $225, I pay the shipping, US addresses only, please.

Photos at: https://www.dropbox.com/sh/paylzcl8bkmcs80/AACXAXxUZaxt7oKUbDgvMKT_a?dl=0
https://www.dropbox.com/sh/paylzcl8bkmcs80/AACXAXxUZaxt7oKUbDgvMKT_a?dl=0

I've made no mods to the actual radio circuitry. The toggle switch on top of the box was my attempt to make a joy-stick type of tuning control. It's a momentary on - off - momentary on switch, push left for down, push right for up, just like the push buttons. It works but the switch tension is a bit stiffer than I'd prefer. The switch on the side of the box, next to the antenna jack, is the power switch. Up turns on the radio, down attaches the battery to the power jack for charging.

Please respond directly.

TNX es 72,

Cam Hartford N6GA

18198. MTR-5B RTC Battery Buffer Alternative

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-13 12:30:43 UTC
From: Martin Hepp
Topic: 17915 Message: 18198

Dear all:

As for solving the problem with the insufficient capacity and surge current of the CR1225 battery for buffering the MTR-5B RTC, I investigated two alternatives:

1. I considered adding a modern 3.0 V LDO voltage regulator with low quiescent current, which would allow buffering the RTC / MCU directly from the attached main battery (as long as connected). I had in mind the 3.0 V version of this one:

http://www.ti.com/lit/ds/symlink/lp2980-n.pdf

Unfortunately, this requires a minimal current of 1 mA, and I think it is too risky to violate this spec from the datasheet because the voltage regulation might be insufficient so that you could fry your MTR MUC.

So I abandonend that idea for the moment.

2. Now, my favorite idea is using two AAAA (not AAA) batteries and this battery holder:

https://www.digikey.com/product-detail/en/mpd-memory-protection-devices/BE-2AAAA-W/BE-2AAAA-W-ND/3029212

The two AAAA cells will provide ca. 600 mAH, which should last really long, while being not much thicker than the existing battery holder. It will be a bit challenging to remove the coin-cell holder, but I am optimistic I will master that.

73 de Martin, DK3IT

18199. Re: MTR-5B RTC Battery Buffer Alternative

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-13 21:19:56 UTC
From: dl2arl@...
Topic: 17915 Message: 18199

(Steven already gave us an advice regarding the BigBen Battery. I took the freedom to understand his advice in the following manner (KISS):

Just take 2 AAA cells and solder them together. Soldering will do them some harm, but they are cheap and patient, so that you can practice a lot (you can buy some that are already soldered, but this is neither cheap nor simple).

Add two wires, wrap the whole in a heat-shrink-tubing of your choice and seal everything as such that the corrosive juice that might (that WILL!) trickle out of those batteries does not find it's way out before you notice it. You might buy some expensive, fancy, bullet-proof, special batteries that are advertised as to never leak, but this is not simple nor cheap either.

And than: enjoy your clock. I personally need a magnyfiying glass to do so, but I still enjoy my personal BigBen just by knowing that it is there and running (after all, I did honestly payd for this feature, didn't I?).

The problem is the mishandling of the cells during soldering. You can not use an AAA battery holder, because in the LNR Case room is sparce and this is not simple either (even if it is sort'a cheap). So just keep your fingers crossed, know what you are doing, be afraid but solder those batteries together as such that you do NOT damage the sealing keeping the juice inside. If you can not do that, just look for another alternative, OR see that you do not leave those heat damaged cells in the rig for a too long time unattended.

I do both, or thrice: I know what I am doing, keep my fingers crossed while soldering and pay attention that I catch the moment when the batteries start bleeding inside the rig to avoid the ugly mess resulting.

Initially I had plans of installing Lithium batteries inside the rig, from the care-free kind used in smoke-alarms. But this was not simple either, nor was it cheap, so I went back to the AAA solution. It happily works for me (I had to add a small piece of foam/Neoprene below the heat-shrinked cells, thin enuf to avoid bulging of the housing, thick enuf to avoid the cells roaming within the case during rough, careless transportation).

Have fun!
Razvan DL2ARL

18200. Re: MTR-5B RTC Battery Buffer Alternative

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-14 14:56:06 UTC
From: Reed White
Topic: 17915 Message: 18200

I bought some small super-capacitors so that a weak battery could be used. Sorry I can't recall the details, but they were purchased from Digi-Key or Mouser. As I recall, I put five 2.7v capacitors in series, still rendering huge capacity. They were small enough to easily fit in the MTR-2 box. This made a difference.

Reed K7FLY

18201. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-15 21:36:20 UTC
From: dl2arl@...
Topic: 17715 Message: 18201

Friends,
Inspired by the success of Colin M1BUU with his SodaPop-Coaster, I began populating my own coaster board using parts from the junk-box, ordering some that are missing via ePay or from some other known source.

I am doing this not because I would need yet another rig, but because of the fun of doing so. Just soldering-by-numbers the parts of a fancy kit does not require the builder to really understand the depths of a rig. But having to source every part on it's own and wondering if it really has to be 5pF or it might be as well 4p7 makes me think it's function over-and-over and obliges me to mentally retrace the path the developer has taken.

It is a step closer from home-building to home-brewing.

Even more: with the Soda Pop series, even digital analphabetes like I am can to some extent read, follow and even dare to understand the code burned in the processor: YES: it makes me daring enuf to believe I could modify the code to closer fit my needs (example: I do not have any of the required crystals, but have a-hatfull-galore of 9MHz quarzes ALREADY measured and paired, a left-over from the most-obstinate project I ever lost my time with: a kit of a local qrp-malfacturer).

In doing so, I found out that the display is not so easy to obtain as I would have thought. I have several LED displays in my junk box, but none is perfect fit, neither geometrically nor regarding the function. This has led me to think the display problematic over and over again and have ended in a brainy latch-up from where there is no escape, unless some of you (Collin? Camil? Steven?) helps me out:

The question is simple: during the time the display is ON, the processor has to repeatedly form and multiplex the bits needed to light up the particular segments of the LED display elements. This is keeping the worthy processor busy, consumes current and creates QRM.

Now: I happened over some old LED display elements from HP that are from a LATCHING TYPE. This means, that they have to be written (8-4-2-1 wise) only once and they keep on displaying what they've been told to indefinitely, or until a special active-bit is set as such that they are ON. If this bit is disabled, they still keep the information in memory, but go off. If the active-bit is reverted again, the original information is displayed again, without having to bother the processor.

Now, this particular display is obsolete by now, HP does not even exist any more the way it did long ago. But I can think, that the idea of a latching display is not lost and gone forever from this world and one could still find some latching LED displays out there. Or just make some, by interleaving a latching gear between the display and the processor in order to relieve the later from the tedious job of cycling the 4 x 7-segments over and over again.

And now to my main question: WOULD IT MAKE SENSE to use a latching display?

Except of already having the parts, I have only one bright idea in mind: when used with a power supply that needs not to be economized (mains connection in the shack or only a short outing in the near-green), I would very much like the display to remain bright as long as the rig is on, but let the processor go idle, just to avoid birdies. Would this alone be worth changing the code?

Maybe you could let me share your opinions. Most probably I will buy a fitting display from mouser or digikey and let it go as it is meant to run, but asking in this group doesn't cost anything and it's fun, so ...

Yours friendly, Razvan DL2ARL

18202. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-16 06:42:22 UTC
From: Martin Hepp
Topic: 17715 Message: 18202

Dear all:

I have also thought of using the SODA Pop design as the basis for a new rig. Basically, I would like to

- create a much more compact PCB layout by using 0603 and 0402 components, and trading in ease of assembly for a much smaller board
- adding a small SWR meter
- replacing the display by a small OLED via I2C (which would also free quite some of teh ATmega pins for other purposes)
- adding a zero beat functionality and
- revising the power concept by adding a variable DC-DC boost converter with good output filter

My hope is to yield a powerful 30m rig that about 2.5 x 2.5 x 1 " or so.

Now, this is not a near-term project, but does anybody already have a KiCad file of the original schematics? Otherwise I would have to create it on my own.

73 de Martin, DK3IT

18203. Re: [AT_Sprint] MTR-5B RTC Battery Buffer Alternative

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-16 07:03:42 UTC
From: Martin Hepp
Topic: 17915 Message: 18203

Hi,
a good thing about the AAAA batteries is that they will fit in *including* the holder, since the holder is about about the height of a bare AAA battery.

But I also like the super-cap idea. Did anybody else try to add a supercap in parallel to the coin-cell?

One could also use a diode / resistor combination as in

https://www.1001-digital.de/media/kondensator-16v-1-1.jpg

(ignore the Zener D2 in this schematic)

to limit the charging current while allowing full discharge current from the supercap. But this might not be necessary.

Would this 1F / 5.5V supercap be enough?

www.mouser.com/ProductDetail/Panasonic/EEC-RF0H105N/

And would you recommend also adding a slightly bigger coin cell type than the original 1225?

73 de Martin, DK3IT

> On 14 Oct 2017, at 16:56, Reed White reed.i.white@...m [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
>
> I bought some small super-capacitors so that a weak battery could be
> used. Sorry I can't recall the details, but they were purchased from
> Digi-Key or Mouser. As I recall, I put five 2.7v capacitors in series,
> still rendering huge capacity. They were small enough to easily fit in
> the MTR-2 box. This made a difference.
>
> Reed K7FLY
>
>
>

18204. AAAA source

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-16 05:15:40 UTC
From: k5dez02@...
Topic: 18204 Message: 18204

In case any of you folks don't already know it, AAAA batteries can be found cheap. Just break apart a 9V battery. There are 6 of them in each one.
Tim - K5DEZ

18205. RE: [AT_Sprint] Re: MTR-5B RTC Battery Buffer Alternative

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-16 14:24:07 UTC
From: Fred Maas
Topic: 17915 Message: 18205
Attachments: 3 described; binary payloads are missing from this source WARC

I like super-capacitors, but I guess I don't understand what you are doing here...

The LiPO batteries have very high C ratings. I have found the voltage drop upon key down to be negligible (hundreths of a volt). The LiPO's, once below 11 volts, plummet fast and continued use will likely damage them.

Perhaps you are using this with alkaloid batteries? If so, I wonder why you would use alkaloid batteries at all? They are bigger, heavier, carry much less charge, and can not be recharged so are far more expensive.

73, Fred KT5X

I bought some small super-capacitors so that a weak battery could be
used. Sorry I can't recall the details, but they were purchased from
Digi-Key or Mouser. As I recall, I put five 2.7v capacitors in series,
still rendering huge capacity. They were small enough to easily fit in
the MTR-2 box. This made a difference.

Reed K7FLY

18206. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-16 14:41:36 UTC
From: steve.kd1jv@...
Topic: 17715 Message: 18206

You will have to redraw the schematic with the KiCad program since your probably the only one who uses that CAD program and no one has a reason to redraw the schematic. I use CirCad98, which only runs on XP or Win7 and is unlikely to be compatible with what you use.

I tried using a small 0.92" OLED from Banggood and it was exceptionally noisy. I didn't try to figure out how to quiet it down. It made so much wide band noise it rendered the receiver useless.

Steve KD1JV

18207. Re: [AT_Sprint] Re: MTR-5B RTC Battery Buffer Alternative

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-16 14:27:33 UTC
From: Shirley Márquez Dúlcey
Topic: 17915 Message: 18207

The alkaline batteries are being used to replace the lithium BACKUP battery
on the Soda Pop board, not to be the source of power for operating the
radio.

On Mon, Oct 16, 2017 at 10:24 AM, 'Fred Maas' just.one.hill@...
[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> I like super-capacitors, but I guess I don't understand what you are doing
> here...
>
>
>
> The LiPO batteries have very high C ratings. I have found the voltage
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> still rendering huge capacity. They were small enough to easily fit in
> the MTR-2 box. This made a difference.
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> Reed K7FLY
>
>
>

18208. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-16 15:06:46 UTC
From: Colin Tuckley
Topic: 17715 Message: 18208

On 16/10/17 15:41, steve wrote:

> You will have to redraw the schematic with the KiCad program since your
> probably the only one who uses that CAD program

Don't be silly! Kicad is one of the most popular free multi-platform
circuit capture and design programs around.

73, Colin G8TMV

--
Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
Debian Developer | +44(0)7799 143369 | 0xFA0C410738C9D903

18209. New project update (slop bucket rig)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-16 15:23:03 UTC
From: steve.kd1jv@...
Topic: 18209 Message: 18209

Hi Gang,

I got the prototype boards the other day and have one working. Just a few minor layout issues to fix. Somehow I didn't notice I ran one of the processor port tracks over the raw DC supply track. Took a few minutes to figure out why the processor was doing odd things and getting so hot. Amazingly, the part wasn't damaged with 9V applied to a port, but it did have to be reprogrammed.

Of most concern was how well the transmitter would work on 20M with a IRF510 PA. It took some tweaks, but now getting nearly 5W out with 13.8V supply and a little better then 5W with 14.4V supply. The spectrum looks good and clean, always a relief to see that.

It looks good enough to commit to buying parts, which I will do shortly. I tired to add some photos of the board to the photo gallery, but they kept being corrupted Will try again.

Steve KD1JV

18210. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-16 15:24:41 UTC
From: steve.kd1jv@...
Topic: 17715 Message: 18210

Maybe I'll have to give it a try, but once you get hooked on CirCad, everything else seems so clunky and a pain to use.

Steve

18211. Re: Selling my MTR

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-16 18:17:44 UTC
From: camqrp@...
Topic: 18197 Message: 18211

Price drop, asking $175, I pay the shipping.

Tnx, Cam N6GA

---In AT_Sprint@yahoogroups.com, <camqrp@...> wrote :

Lots of little radios gathering dust here, so I thought I'd pass on this MTR to a new home. This is an original 2-band kit version, covering 20 and 40 meters. It's mounted in a swap meet box, just big enough to hold the radio and a 3-pack of cell phone LiPo batteries. The battery pack includes a protection/charge controller board and is good for 1500 mAH. I used this rig in the latest Skeeter Hunt, four hours of operating with plenty of transmit time and it barely made a dent in the batteries. Asking $225, I pay the shipping, US addresses only, please.

Photos at: https://www.dropbox.com/sh/paylzcl8bkmcs80/AACXAXxUZaxt7oKUbDgvMKT_a?dl=0
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I've made no mods to the actual radio circuitry. The toggle switch on top of the box was my attempt to make a joy-stick type of tuning control. It's a momentary on - off - momentary on switch, push left for down, push right for up, just like the push buttons. It works but the switch tension is a bit stiffer than I'd prefer. The switch on the side of the box, next to the antenna jack, is the power switch. Up turns on the radio, down attaches the battery to the power jack for charging.

Please respond directly.

TNX es 72,

Cam Hartford N6GA

18212. Re: MTR-5B RTC Battery Buffer Alternative

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-17 03:23:48 UTC
From: Reed White
Topic: 17915 Message: 18212

I initially pursued the super-capacitor path because I was planning to use the easily-available 9v alkaloid batteries. This actually worked well. However, later I moved to a small LIPO battery. The super-capacitors were already in the rig, and helpful in a low-battery situation, so I elected to keep them.

Reed K7FLY

18213. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-16 23:13:15 UTC
From: Michael Lloyd
Topic: 17715 Message: 18213

I tried KiCad... didn't like it.. I'll stick with the unscrewed version
of Eagle. My board mill likes it;

73
NE5U

Mike
> steve.kd1jv@... [AT_Sprint] <mailto:AT_Sprint@yahoogroups.com>
> October 16, 2017 at 10:24 AM
>
> Maybe I'll have to give it a try, but once you get hooked on CirCad,
> everything else seems so clunky and a pain to use.
>
> Steve
>
>
> Colin Tuckley colin@... [AT_Sprint]
> <mailto:AT_Sprint@yahoogroups.com>
> October 16, 2017 at 10:06 AM
>
> On 16/10/17 15:41, steve wrote:
>
> > You will have to redraw the schematic with the KiCad program since your
> > probably the only one who uses that CAD program
>
> Don't be silly! Kicad is one of the most popular free multi-platform
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>
> 73, Colin G8TMV
>
> --
> Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
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>
>
> steve.kd1jv@... [AT_Sprint] <mailto:AT_Sprint@yahoogroups.com>
> October 16, 2017 at 9:41 AM
>
> You will have to redraw the schematic with the KiCad program since
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> reason to redraw the schematic. I use CirCad98, which only runs on XP
> or Win7 and is unlikely to be compatible with what you use.
>
> I tried using a small 0.92" OLED from Banggood and it was
> exceptionally noisy. I didn't try to figure out how to quiet it down.

> It made so much wide band noise it rendered the receiver useless.
>
> Steve KD1JV
>
>

18214. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-17 13:45:31 UTC
From: Trevor Jacobs
Topic: 17715 Message: 18214

I'll give a second vote for Eagle. In about 2000 I was still using Accel Tango that I'd been using since the early 90s. It was time for something new, so I eventually popped for the pro version of Eagle and never looked back. It's a really great piece of software and also get Pentalogix Viewmate (freeware) to view your gerber files and you are all set. I've also heard really good things about CirCAD but never used it. CAD software is kind of like learning a new programming language - once you invest the time to learn it, unless needed, you don't change ;-)

73 es God bless de Trev K6ESE

-----Original Message-----
From: Michael Lloyd mikell@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
To: AT_Sprint <AT_Sprint@yahoogroups.com>
Sent: Tue, Oct 17, 2017 8:35 am
Subject: Re: [AT_Sprint] Re: SODA POP source code

I tried KiCad... didn't like it.. I'll stick with the unscrewed version of Eagle. My board mill likes it;

73
NE5U

Mike

steve.kd1jv@gmail.com [AT_Sprint]

October 16, 2017 at 10:24 AM

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Steve

Colin Tuckley colin@... [AT_Sprint]

October 16, 2017 at 10:06 AM

On 16/10/17 15:41, steve wrote:

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steve.kd1jv@... [AT_Sprint]

October 16, 2017 at 9:41 AM

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Steve KD1JV

18215. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-17 14:22:14 UTC
From: Colin Tuckley
Topic: 17715 Message: 18215

On 17/10/17 00:13, Michael wrote:

> I tried KiCad... didn't like it.. I'll stick with the unscrewed
> version of Eagle. My board mill likes it;

Define "tried it" - unless you spent more than 4 hours on it then it was
not a fair assessment.

It produces Industry standard Gerber files, just like Eagle and most
other pcb cad software, so every fab house accepts the files.

The main advantage of kicad, apart form it being free, modern and
supported, is that it is multi platform. It's available for Windows, Mac
and Linux and importantly because the files it generates are all plain
text the project data can be moved from one platform to another and
worked on. This makes project collaboration very simple.

73, Colin G8TMV

--
Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
Debian Developer | +44(0)7799 143369 | 0xFA0C410738C9D903

18216. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-17 16:22:37 UTC
From: John Sutter
Topic: 17715 Message: 18216

Over the last few weeks I was going through my PCB SW selection process.
I almost went with Orcad. There are promotions now where you can get a
perpetual license for $400-500. I looked at Eagle but lost interest when I had
found they were bought and changed their pricing model. I looked at free
versions of tools from Digikey and Mouser. I had looked at gEDA and KiCAD
years ago, but when I found that KiCAD was adopted by CERN a few years
ago and that they been working on improving it, I went with it. So far so good.

73
John W1JDS

On 10/17/2017 6:45 AM, Trevor Jacobs k6ese@... [AT_Sprint] wrote:

I'll give a second vote for Eagle. In about 2000 I was still using Accel Tango that I'd been using since the early 90s. It was time for something new, so I eventually popped for the pro version of Eagle and never looked back. It's a really great piece of software and also get Pentalogix Viewmate (freeware) to view your gerber files and you are all set. I've also heard really good things about CirCAD but never used it. CAD software is kind of like learning a new programming language - once you invest the time to learn it, unless needed, you don't change ;-)

73 es God bless de Trev K6ESE

-----Original Message-----
From: Michael Lloyd mikell@... [AT_Sprint]
To: AT_Sprint
Sent: Tue, Oct 17, 2017 8:35 am
Subject: Re: [AT_Sprint] Re: SODA POP source code

I tried KiCad... didn't like it.. I'll stick with the unscrewed version of Eagle. My board mill likes it;

73
NE5U

Mike

steve.kd1jv@... [AT_Sprint]

October 16, 2017 at 10:24 AM

Maybe I'll have to give it a try, but once you get hooked on CirCad, everything else seems so clunky and a pain to use.

Steve

Colin Tuckley colin@... [AT_Sprint]

October 16, 2017 at 10:06 AM

On 16/10/17 15:41, steve wrote:

> You will have to redraw the schematic with the KiCad program since your
> probably the only one who uses that CAD program

Don't be silly! Kicad is one of the most popular free multi-platform
circuit capture and design programs around.

73, Colin G8TMV

--
Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
Debian Developer | +44(0)7799 143369 | 0xFA0C410738C9D903

steve.kd1jv@... [AT_Sprint]

October 16, 2017 at 9:41 AM

You will have to redraw the schematic with the KiCad program since your probably the only one who uses that CAD program and no one has a reason to redraw the schematic. I use CirCad98, which only runs on XP or Win7 and is unlikely to be compatible with what you use.

I tried using a small 0.92" OLED from Banggood and it was exceptionally noisy. I didn't try to figure out how to quiet it down. It made so much wide band noise it rendered the receiver useless.

Steve KD1JV

18217. Re: [AT_Sprint] Re: SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-17 15:08:48 UTC
From: Michael Lloyd
Topic: 17715 Message: 18217

Tried is defined by the fact that it locked up and couldn't be used. That's as fair as I'm going to waste my time to be for that stuff. Maybe one day it'll be ready for prime time.

To attempt to be somewhat fair, I've been using Eagle for most of the software's life. I have libraries of my own and the base of libraries on the web is huge. If I need something, I can make it (because the software actually runs). I don't have to hunt and peck for anything, and most important, Eagle actually opens and runs.

I am obviously biased toward using Eagle software, mostly because it runs vs has to be fiddled with and doesn't run. The downside to Eagle is that Autodesk bought them so I'm out of the update chain now. If I'm going to pay for design software it'll be Altium, maybe.

Eagle brd files (not gerbers) are accepted by the board house that I use. They also accept files from KiCad files, Atium files, etc., but it's plug and play with Eagle. There's a button to upload and order from them on the Eagle menu bar (but I don't use it). They have Design Rules for Eagle that make board errors almost non-existent, not counting my circuit screw ups but I use my Othermill for prototyping and have those bugs worked out ahead of time (in theory). There are two pages of "do this, do thats" for KiCad vs simply uploading a brd file. I like my board house so that is a factor. I don't need high volumes of boards. They ship 3 per order and their pricing is decent.

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>

18218. Unbuilt Soda Pop?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-17 15:54:08 UTC
From: Trevor Jacobs
Topic: 18218 Message: 18218

Hey Guys,

Anyone have an unbuilt Soda Pop they'd like to part with? I'm looking for one. I'd like to check out the receiver. Thanks in advance!

73 es God bless de Trev K6ESE

18219. Re: [AT_Sprint] SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-17 19:48:01 UTC
From: Martin Hepp
Topic: 17715 Message: 18219

Hi all:

First of all, I did not want to start a heated debate about the best EDA tools, and I think everybody should happily used whichever tool he or she prefers.
I just wanted to check whether someone had already ported the SODA POP schematics to Kicad, in order to avoid duplicate work. But it is perfectly fine for me to work on a Kicad version of the schematics, it will likely be just a few evenings of relaxed drawing ;-)

One thing for KiCad, though:

I used to be a happy (yet not very intense) Eagle user, mostly for research prototypes. The new licensing model for Eagle made it difficult for me to use Eagle with students. So I looked for alternatives. After about two days of tinkering with it, I started to really enjoy Kicad. A few good things:

1. It is free, multi-platform, and open source.
2. Scripts and add-ons can be developed in plain Python instead of a proprietary scripting language, and help you automate common tasks and workflows:
http://kicad-python.readthedocs.io/en/latest/
https://kicad.mmccoo.com/kicad-scripting-table-of-contents/
3. The integrated 3D-viewer is really useful for inspecting your work on the fly.
4. The development roadmap is public; you know where the project is heading to:
http://docs.kicad-pcb.org/doxygen/v5_road_map.html
https://www.ohwr.org/projects/cern-kicad/wiki/WorkPackages

It is also important to stress that KiCad got a big boost when CERN decided to contribute a lot of manpower into its development by 2015:

https://home.cern/about/updates/2015/02/kicad-software-gets-cern-treatment

So if you had bad experiences with earlier versions of Kicad, it may be worth giving it another try.

73 de Martin, DK3IT

> On 17 Oct 2017, at 17:08, Michael Lloyd mikell@... [AT_Sprint]
<AT_Sprint@yahoogroups.com> wrote:
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> Tried is defined by the fact that it locked up and couldn't be used. That's as fair as I'm going to waste my time to be for that stuff. Maybe one day it'll be ready for prime time.
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18220. Re: New project update (slop bucket rig)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-17 21:01:52 UTC
From: dl2arl@...
Topic: 18209 Message: 18220

KD1JV writes:

"Of most concern was how well the transmitter would work on 20M with a IRF510 PA"

Well, I remember my old QRP-Plus from Index labs. A wonderfull rig that had one major flaw for anybody wanting to play SSB with it. The best mod from all was to replace the whole PA with a push-pull type, yielding a much better linearity. But the price was high. An intermediate solution that worked like a charm was to replace the IRF510 with a Motorola MTP3055E (make sure it is an old E and not a newer V version!).
Why not give this transistor a try in the bucket sloper too?

(see also: http://w1hue.org/Articles/Q_MODS6.html) http://w1hue.org/Articles/Q_MODS6.html
Look for the chapter:
New Transmitter PA – The Final Final
Maybe this helps. It did for me!

Yours friendly, Razvan DL2ARL

18221. Re: [AT_Sprint] SODA POP source code

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-17 22:48:54 UTC
From: Michael Lloyd
Topic: 17715 Message: 18221

My "bad experience" with KiCad was about 3 or 4 weeks ago. As you say, everyone should use what they are happy with. So far so good.

I chose to avoid the "new" Eagle licensing arrangement by not "upgrading" and so far I'm happy.

Maybe one day the version of Eagle that I'm using will be killed off by Autodesk (maybe not since I paid for the license) and I'll delve into KiCad again. Hopefully the "few good things" list will have something on it that I can get excited about.

Multi-platform - didn't work on my Mac
Scripts and Add-ons - don't care about that
3D viewer - don't care about that
Roadmap - don't care about that.

I just need to be able to build a schematic, from a stock of components, then add the components to a board, shaped like I want it to be shaped, route traces, and send a file to a board house or open it with my Othermill without having to post process it. 4 Layers are plenty. It's important that the software works. And that's what I have now...

73
NE5U

Mike
> Martin Hepp mfhepp@... [AT_Sprint]
> <mailto:AT_Sprint@yahoogroups.com>
> October 17, 2017 at 2:48 PM
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> Hi all:
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> EDA tools, and I think everybody should happily used whichever tool he
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> research prototypes. The new licensing model for Eagle made it
> difficult for me to use Eagle with students. So I looked for
> alternatives. After about two days of tinkering with it, I started to

> really enjoy Kicad. A few good things:
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> 1. It is free, multi-platform, and open source.
> 2. Scripts and add-ons can be developed in plain Python instead of a
> proprietary scripting language, and help you automate common tasks and
> workflows:
> http://kicad-python.readthedocs.io/en/latest/
> https://kicad.mmccoo.com/kicad-scripting-table-of-contents/
> 3. The integrated 3D-viewer is really useful for inspecting your work
> on the fly.
> 4. The development roadmap is public; you know where the project is
> heading to:
> http://docs.kicad-pcb.org/doxygen/v5_road_map.html
> https://www.ohwr.org/projects/cern-kicad/wiki/WorkPackages
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> It is also important to stress that KiCad got a big boost when CERN
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18222. RE: [AT_Sprint] Re: New project update (slop bucket rig)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-18 04:00:12 UTC
From: Steven Weber
Topic: 18209 Message: 18222
Attachments: 1 described; binary payloads are missing from this source WARC

It seems the “E” version is obsolete and no longer available. That rules that out. The “V” flavor has higher input/output and reverse capacitance then the IRF510B and has significantly slower switching times.

I tried using a real RF power mosfet and it was too good. Made a power oscillator. A push pull amp just took up too much space and is more of a mechanical challenge in terms of heat sinking.

73, Steve KD1JV

KD1JV writes:

"Of most concern was how well the transmitter would work on 20M with a IRF510 PA"

Well, I remember my old QRP-Plus from Index labs. A wonderfull rig that had one major flaw for anybody wanting to play SSB with it. The best mod from all was to replace the whole PA with a push-pull type, yielding a much better linearity. But the price was high. An intermediate solution that worked like a charm was to replace the IRF510 with a Motorola MTP3055E (make sure it is an old E and not a newer V version!).
Why not give this transistor a try in the bucket sloper too?

(see also: http://w1hue.org/Articles/Q_MODS6.html) Look for the chapter:

New Transmitter PA – The Final Final

Maybe this helps. It did for me!

Yours friendly, Razvan DL2ARL

18223. RE: [AT_Sprint] Re: New project update (slop bucket rig)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-19 06:37:52 UTC
From: bubnikv@...
Topic: 18209 Message: 18223

> I tried using a real RF power mosfet and it was too good. Made a power oscillator.

I bet a little more of resistive gate loading or a little bit of a negative feedback would cure it.

Vojtech

18224. RE: [AT_Sprint] Re: New project update (slop bucket rig)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-19 22:23:12 UTC
From: dl2arl@...
Topic: 18209 Message: 18224

"I bet a little more of resistive gate loading"...
and maybe a small ferrite bead...

18225. The Guys are back...

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-21 14:35:51 UTC
From: wa4mnt@...
Topic: 18225 Message: 18225

QRPGuys is open for orders to our regular product line after the recent shutdown. We want to thank you for your support and understanding. We are pleased to announce two new products. Come by for a visit and see the KD1JV Code Trainer, the 40m-10m UnUnTenna, and more to follow soon.

73,
ken - wa4mnt
www.qrpguys.com http://www.qrpguys.com

18226. RE: [AT_Sprint] Re: New project update (slop bucket rig)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-21 19:58:49 UTC
From: steve.kd1jv@...
Topic: 18209 Message: 18226

I built up a 40M board last night and made half a dozen contacts in the NY state QSO party with it this afternoon. My "88" is broadside to NY, so that's not a big feat, but still. About 6W PEP. One call - when timed properly.

It still needs a few tweaks, but I'm really happy with the way it's working so far.

73, Steve KD1JV

18227. Re: New project update (slop bucket rig)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-21 20:25:26 UTC
From: ohwenzelph@...
Topic: 18209 Message: 18227

I thought you were going to make it for 20. Not so?

18228. RE: [AT_Sprint] Re: New project update (slop bucket rig)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-21 21:52:50 UTC
From: Steven Weber
Topic: 18209 Message: 18228

I thought you were going to make it for 20. Not so?

18229. Re: [AT_Sprint] New project update (slop bucket rig)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-21 22:25:00 UTC
From: Marcus B
Topic: 18209 Message: 18229

This I am really excited about, thanks for working on it Steve, I think I've mentioned in the past wanting a super small Weber SSB rig. 20m might work for me in VK, but I might end up with 40m because most SOTA chasers are < 1000 km from most summits I visit. And the talk about 30m has been interesting, in VK we can do voice there and a nice 30m digital rig would be awesome, but I understand design limitations. I might look at the cheap(-ish) single frequency devices from Czech Republic again.

I did notice that you are only making 50 and there were more than 50 responses to the poll, would it be possible to put the final PCB design up on a site like OSH Park so if any of us miss out we can gather the bits ourselves? (Or if anyone wants multiple boards to experiment with.)

73, vk5wtf

On Tue., 17 Oct. 2017, 01:53 steve.kd1jv@... [AT_Sprint], <AT_Sprint@yahoogroups.com> wrote:

>
>
> Hi Gang,
>
> I got the prototype boards the other day and have one working. Just a few
> minor layout issues to fix. Somehow I didn't notice I ran one of the
> processor port tracks over the raw DC supply track. Took a few minutes to
> figure out why the processor was doing odd things and getting so hot.
> Amazingly, the part wasn't damaged with 9V applied to a port, but it did
> have to be reprogrammed.
>
> Of most concern was how well the transmitter would work on 20M with a
> IRF510 PA. It took some tweaks, but now getting nearly 5W out with 13.8V
> supply and a little better then 5W with 14.4V supply. The spectrum looks
> good and clean, always a relief to see that.
>
> It looks good enough to commit to buying parts, which I will do shortly. I
> tired to add some photos of the board to the photo gallery, but they kept
> being corrupted Will try again.
>
> Steve KD1JV
>
>
>
>

18230. RE: [AT_Sprint] New project update (slop bucket rig)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-22 00:09:53 UTC
From: Steven Weber
Topic: 18209 Message: 18230

If all goes well with the first 50th, QRP KITS will pick up the kit to make it available long term. And by then maybe I'll have figured out the values needed for other bands. 30M is the tricky one, since the band lands right near the popular IF frequencies for making a SSB filter. The farther removed the IF is from the operating frequency, the easier it is to filter out the unwanted spurs. So, putting one on 30M could be a long shot.

73, Steve

This I am really excited about, thanks for working on it Steve, I think I've mentioned in the past wanting a super small Weber SSB rig. 20m might work for me in VK, but I might end up with 40m because most SOTA chasers are < 1000 km from most summits I visit. And the talk about 30m has been interesting, in VK we can do voice there and a nice 30m digital rig would be awesome, but I understand design limitations. I might look at the cheap(-ish) single frequency devices from Czech Republic again.

I did notice that you are only making 50 and there were more than 50 responses to the poll, would it be possible to put the final PCB design up on a site like OSH Park so if any of us miss out we can gather the bits ourselves? (Or if anyone wants multiple boards to experiment with.)

73, vk5wtf

18231. Re: [AT_Sprint] New project update (slop bucket rig)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-23 01:03:54 UTC
From: Heilman, William Clay
Topic: 18209 Message: 18231

Any idea on cost of first 50?
Ke7ngo

Clayton Heilman

"The world is run by those who show up." Richard George Weingardt

On Oct 21, 2017, at 5:10 PM, Steven Weber
steve.kd1jv@gmail.com<mailto:steve.kd1jv@gmail.com> [AT_Sprint]
<AT_Sprint@yahoogroups.com<mailto:AT_Sprint@yahoogroups.com>> wrote:

CAUTION: This email originated from outside of CA. Do not click links or open attachments unless you recognize the sender and know the content is safe.

If all goes well with the first 50th, QRP KITS will pick up the kit to make it available long term. And by then maybe I'll have figured out the values needed for other bands. 30M is the tricky one, since the band lands right near the popular IF frequencies for making a SSB filter. The farther removed the IF is from the operating frequency, the easier it is to filter out the unwanted spurs. So, putting one on 30M could be a long shot.

73, Steve

This I am really excited about, thanks for working on it Steve, I think I've mentioned in the past wanting a super small Weber SSB rig. 20m might work for me in VK, but I might end up with 40m because most SOTA chasers are < 1000 km from most summits I visit. And the talk about 30m has been interesting, in VK we can do voice there and a nice 30m digital rig would be awesome, but I understand design limitations. I might look at the cheap(-ish) single frequency devices from Czech Republic again.

I did notice that you are only making 50 and there were more than 50 responses to the poll, would it be possible to put the final PCB design up on a site like OSH Park so if any of us miss out we can gather the bits ourselves? (Or if anyone wants multiple boards to experiment with.)

73, vk5wtf

18232. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-25 08:14:02 UTC
From: Barry N1EU
Topic: 18147 Message: 18232

Has it been confirmed that the SSB rig will be able to handle the duty
cycle of digital modes like FT8?

Thanks & 73,
Barry N1EU

On Sat, Sep 30, 2017 at 2:47 PM, mike-2007@... [AT_Sprint] <
AT_Sprint@yahoogroups.com> wrote:

>
>
> Yeah - I just completed WAS in FT8 mode a few weeks ago. 47 states on 20m,
> 2 states on 40m and 1 state on 30m. But I see the potential in 30m over the
> next several years. BTW - not every country is limited to no SSB on 30m,
> and I still have hopes that we'll get an SSB portion in 30m sometime down
> the road. after all, if we can share 5 channels on 60m.......
>
> Vy73 - Mike - KD5KC.
>
> ---- "Shirley Márquez Dúlcey mark@... [AT_Sprint]" <
> AT_Sprint@yahoogroups.com> wrote:
> > They're just opinions. Steve doesn't have to act on them. I am fascinated
> > by the amount of interest in a 30m version even though it can't be used
> for
> > voice; it shows that there are at least a few QRPers out there who are
> > doing digital modes.
> >
> >
> > On Sat, Sep 30, 2017 at 10:11 AM, n1rx@... [AT_Sprint] <
> > AT_Sprint@yahoogroups.com> wrote:
> >
> > >
> > >
> > > I think it is quite interesting (and a bit presumptuous) that people
> > are
> > > > modifying Steve's poll on HIS next project. After all he is the one
> > who has
> > > > to design, debug and kit it...
> > >
> > >
> >
> >
> >
> >
> >

18233. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-25 12:24:03 UTC
From: Hank Greeb
Topic: 18147 Message: 18233

Lettuce C what Wizard Steve conjurers up for us. I'll br DEE Lite Ted
at any band, any limitations. anyt enhancements which comes out.

remember, there was/is a mod for the ATSprint which allowed PSK31, and
it has as demanding power use as any of these "non traditional" digital
modes.

72/73 de n8xx Hg
QRP >99.44% of the time

On 10/25/2017 4:14 AM, Barry N1EU n1eu.barry@... [AT_Sprint] wrote:
>
>
> Has it been confirmed that the SSB rig will be able to handle the duty
> cycle of digital modes like FT8?
>
> Thanks & 73,
> Barry N1EU
>
> On Sat, Sep 30, 2017 at 2:47 PM, mike-2007@...
> <mailto:mike-2007@...> [AT_Sprint] <AT_Sprint@yahoogroups.com
> <mailto:AT_Sprint@yahoogroups.com>> wrote:
>
> Yeah - I just completed WAS in FT8 mode a few weeks ago. 47 states
> on 20m, 2 states on 40m and 1 state on 30m. But I see the
> potential in 30m over the next several years. BTW - not every
> country is limited to no SSB on 30m, and I still have hopes that
> we'll get an SSB portion in 30m sometime down the road. after all,
> if we can share 5 channels on 60m......
>
> Vy73 - Mike - KD5KC.
>
> ---- "Shirley Márquez Dúlcey mark@...
> <mailto:mark@...> [AT_Sprint]" <AT_Sprint@yahoogroups.com
> <mailto:AT_Sprint@yahoogroups.com>> wrote:
> > They're just opinions. Steve doesn't have to act on them. I am
> fascinated
> > by the amount of interest in a 30m version even though it can't
> be used for
> > voice; it shows that there are at least a few QRPers out there
> who are
> > doing digital modes.
> >
> >
> > On Sat, Sep 30, 2017 at 10:11 AM, n1rx@...
> <mailto:n1rx@...> [AT_Sprint] <

> > AT_Sprint@yahoogroups.com <mailto:AT_Sprint@yahoogroups.com>> wrote:
> >
> > >
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> people are
> > > modifying Steve's poll on HIS next project. After all he is
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> > > to design, debug and kit it...
> > >
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This email has been checked for viruses by AVG.
http://www.avg.com

18234. RE: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-25 15:58:10 UTC
From: Steven Weber
Topic: 18147 Message: 18234

It depends on how much extra heat sinking you add. The board will come with minimal heat sinking, good enough for short duty cycle transmissions such as when operating S+P. If your sitting calling CQ for extended periods of time, or make long winded transmissions, you'd want to beef up the heat sinking.

I'm trying to figure out how to add a peak modulation indicator as an aid to setting the audio level so you'd don't overdrive it and start flat topping the signal and start causing splatter. The spectrum gets a little dirty if you over drive the mixer. I don't have much room to add something like that.

Steve KD1JV

Has it been confirmed that the SSB rig will be able to handle the duty cycle of digital modes like FT8?
Thanks & 73,
Barry N1EU

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Vy73 - Mike - KD5KC.

18235. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-25 19:24:18 UTC
From: Marcus B
Topic: 18147 Message: 18235

Hey Steve,

One way to add an indication of TX audio quality is to add a monitor back
to the headphones, doesn't require extra output and if someone adds a
compressor it's much easier to adjust it.

73,
Marcus.

On Thu., 26 Oct. 2017, 05:39 Steven Weber steve.kd1jv@...
[AT_Sprint], <AT_Sprint@yahoogroups.com> wrote:

>
>
> It depends on how much extra heat sinking you add. The board will come
> with minimal heat sinking, good enough for short duty cycle transmissions
> such as when operating S+P. If your sitting calling CQ for extended periods
> of time, or make long winded transmissions, you'd want to beef up the heat
> sinking.
>
>
>
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> to setting the audio level so you'd don't overdrive it and start flat
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> like that.
>
>
>
> Steve KD1JV
>
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>
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>
>
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> next several years. BTW - not every country is limited to no SSB on 30m,
> and I still have hopes that we'll get an SSB portion in 30m sometime down
> the road. after all, if we can share 5 channels on 60m.......
>
> Vy73 - Mike - KD5KC.
>
>
>
>
>
>

18236. Re: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-25 20:18:14 UTC
From: Barry N1EU
Topic: 18147 Message: 18236

Thanks Steve. I take that to mean that it will not handle the 15sec on, 15 sec off transmit duty cycle of FT8 digital mode for 15 minutes or longer (for example) without beefing up the heat sink.

73, Barry N1EU

On Wed, Oct 25, 2017 at 3:58 PM, Steven Weber steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> It depends on how much extra heat sinking you add. The board will come
> with minimal heat sinking, good enough for short duty cycle transmissions
> such as when operating S+P. If your sitting calling CQ for extended periods
> of time, or make long winded transmissions, you'd want to beef up the heat
> sinking.
>
>
>
> I'm trying to figure out how to add a peak modulation indicator as an aid
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>
> Steve KD1JV
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> the road. after all, if we can share 5 channels on 60m.......
>
> Vy73 - Mike - KD5KC.
>
>
>
>
>
>

18237. RE: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-25 21:20:58 UTC
From: Steven Weber
Topic: 18147 Message: 18237
Attachments: 1 described; binary payloads are missing from this source WARC

Yea, In that case you'd probably want to add some metal. That will be easy enough to do.
Steve

Thanks Steve. I take that to mean that it will not handle the 15sec on, 15 sec off transmit duty cycle of FT8 digital mode for 15 minutes or longer (for example) without beefing up the heat sink.
73, Barry N1EU

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I'm trying to figure out how to add a peak modulation indicator as an aid to setting the audio level so you'd don't overdrive it and start flat topping the signal and start causing splatter. The spectrum gets a little dirty if you over drive the mixer. I don't have much room to add something like that.

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Vy73 - Mike - KD5KC.

18238. RE: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-25 23:21:53 UTC
From: Steven Weber
Topic: 18147 Message: 18238
Attachments: 1 described; binary payloads are missing from this source WARC

That would require the ability to receive and transmit at the same time and that is not practical.

The best way to set the modulation is with a Scope to monitor the output signal. For as little as $17 one can buy a simple DSO kit which would do the job, and be portable. But mostly you only have to do this once. At the very least, I will add a diode envelope rectifier, resistor divider and filter cap to provide a DC level Scope port.
KD1JV
Hey Steve,
One way to add an indication of TX audio quality is to add a monitor back to the headphones, doesn't require extra output and if someone adds a compressor it's much easier to adjust it.
73,
Marcus.

On Thu., 26 Oct. 2017, 05:39 Steven Weber steve.kd1jv@... [AT_Sprint], <AT_Sprint@yahoogroups.com> wrote:

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Vy73 - Mike - KD5KC.

18239. RE: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-27 21:05:59 UTC
From: ohwenzelph@...
Topic: 18147 Message: 18239

So you can do this at audio? The JYE type kit only goes up to 200khz

18240. RE: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-27 23:33:37 UTC
From: dl2arl@...
Topic: 18147 Message: 18240

the ears mother nature gifted us with can only cope at most with 20kHz, and this only if they are stiff, shiny, well cleaned and brand new, and still you can do wonderful dx with them. No need for more, unless the DSP in-between them two ears lacks of grip.

When tuning a PA, you might want to look for a healthy envelope: i.e. you do not care much for the carrier. Looking for the carrier and it's harmonics is another issue, needing not so much of a scope but a spectrum analyzer and even more brainy grips.

By the way: if some hesitate the purchase and handling of a Digital Sampling scOpe, because of the price and trouble with setting it all up and running...

well. gentlemen reading these lines: you already have a Digital Sampling scOpe, otherwise you would not read these lines. No need to buy and set-up a BY DSO: you already have a sound-card built in your PC (even tablets will do) and you need nothing more to qualify the envelope of your tx. For free.

In need of a two-tone generator? Gentlemen, you already have it: no need to rush and buy a fancy new one: you already own it: just grab inside the box you are reading these lines with.

Hoping to have helped,

yours friendly, Razvan DL2ARL

18241. RE: [AT_Sprint] Re: New Project!

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-10-28 00:43:27 UTC
From: Steven Weber
Topic: 18147 Message: 18241

Yes, at that point your looking at audio frequencies. Your simply looking at the carrier amplitude as it’s being modulated.
KD1JV

So you can do this at audio? The JYE type kit only goes up to 200khz

18242. Re: [AT_Sprint] Re: Soda pop parts specifications

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-03 20:29:27 UTC
From: John Sutter
Topic: 17864 Message: 18242

Finally getting around to gathering parts to build up the spare PCB.

Next on my list to find are:
Trimmer caps: No idea what values they are
Audio jacks: Probably find at local surplus shops
Tactile switches: Looking at now on Tayda and Digikey, just need to decide on the length
BNC jack: Probably find at local surplus shops or probably my parts bin
22K Pot: No luck yet, maybe Tayda A-1866 25K
Encoder: Probably in my spare parts

Does anyone have any part numbers for these parts that worked/fit?

- John
W1JDS

On 5/17/2017 6:36 PM, David Giddy david@... [AT_Sprint] wrote:

Here in VK, I find that if I need to order a decent number of components, Digikey is the best value (free shipping above A$60) and relatively quick given they seem to have a warehouse in asia now. However, if I need just a few components that I can't get locally (most of the time these days), then RS is a good option due to the free shipping with no minimum order. Not sure how they justify that given everything is sent by courier! Components are usually more expensive from them though.

I also like the BOM feature on Digikey (and Mouser) that allows you to include the circuit board part number with each component. This results in each packaged component having the relevant part number marked on it making board assembly easier and less error prone.

It's certainly worth buying in larger volumes if possible as the price breaks are significant.

73

David

VK3IL

On Thu, May 18, 2017 at 6:00 AM, Shirley Márquez Dúlcey mark@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

Here in the US at least, the major distributors also have good pricing on the jellybean parts (resistors and capacitors) so long as you buy them in quantities large enough to stock your shack a bit. For example, one SMD resistor from Digi-Key is 10 cents, but 10 of the same value can be bought for under 20 cents total, and 100 of them cost less than a dollar. (The exact price depends on value and manufacturer.) Basically, one of ANY part is a minimum of 10 cents to justify somebody's effort to bag it.

On Wed, May 17, 2017 at 8:28 AM, simon.jack68@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

Thanks David and Shirley. Decent pricing and free shipping from RS?? I had given up on the big suppliers due to pricing and shipping costs. Will have to re-evaluate.

Regards

Simon

--

73

David

VK3IL

18243. Tiny SWR Indicator for MTR / ATS Rigs

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-14 14:12:57 UTC
From: Martin Hepp
Topic: 18243 Message: 18243
Attachments: 1 described; binary payloads are missing from this source WARC

Dear all:

I recently completed work on a very small SWR indicator suitable for all MTR/ATS rigs. The PCB is only 21 x 14.5 mm thanks to SMD components.

The PCB is available from OSH Park for 2.30 USD for three pieces:

https://oshpark.com/shared_projects/JtKPis3T

Assembly instructions and part lists for Mouser are at

https://github.com/mfhepp/tinyswr

The PCB will fit into the MTR cases, you just need to drill holes for the four LEDs.

The schematic is based on a design by Hans Steinort (DF3OS), see http://www.sp5jnw.sem.pl/konstrukcje/atudf3oshtm/atudf3oseng.pdf, with improvements from Dieter Engels (DJ6TE) and Hannes Hiller (DL9SCO).

vy 73 de Martin, DK3IT

18244. PCB Layout Files of MTR-3B (LNR Version)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-14 14:16:41 UTC
From: Martin Hepp
Topic: 18244 Message: 18244

Dear all:

I want to include a DC-DC boost converter into a new MTR-based project and would like to reuse the existing power switch. For that, however, I need to identify the best point for the respective mod. In the schematic, it will be either directly before or after the polarity protection circuit.

Are the images of the top and bottom layers of the PCB without components anywhere on the Web? I would like to understand the routing before fireing up the soldering iron ;-)

Mni tnx es 73 de Martin, DK3IT

18245. RE: [AT_Sprint] PCB Layout Files of MTR-3B (LNR Version)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-14 16:42:27 UTC
From: Steven Weber
Topic: 18244 Message: 18245

The easiest way to do that would be to remove the reverse polarity protection mosfet located below the on/off switch and tack the booster in there. Any other method would get messy.

KD1JV

Dear all:

I want to include a DC-DC boost converter into a new MTR-based project and would like to reuse the existing power switch. For that, however, I need to identify the best point for the respective mod. In the schematic, it will be either directly before or after the polarity protection circuit.

Are the images of the top and bottom layers of the PCB without components anywhere on the Web? I would like to understand the routing before fireing up the soldering iron ;-)

Mni tnx es 73 de Martin, DK3IT

18246. NAQCC November Sprint this Wednesday Evening

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-15 02:23:10 UTC
From: Larry W2LJ
Topic: 17198 Message: 18246

The November NAQCC sprint is this coming Wednesday evening local time (November 15th, EST - 8:30-10:30PM, CST - 7:30-9:30PM, MST - 6:30-8:30PM, PST - 5:30-7:30PM), which translates as Thursday, November 16, 0130 to 0330Z in all cases.

For all the "official" information, please go to:

http://naqcc.info/sprint/sprint201711.html

There you will find all the details as to time, frequencies and other important information.

Certificates: SWA (simple wire antennas) certificates by call area, VE and DX for 1st, 2nd and 3rd place finishers (New!). A Certificate for top score in the GAIN antenna category.

Prizes: Too many to list!! - check out the prizes page on our website.

This is a monthly event that caters to the CW veteran, the CW newcomer, straight key and bug fans. All are welcome to participate (this includes QRO); but you must use QRP power levels to compete for awards.

If you've been hesitant to join in our sprints because you hear other sprints running at breakneck speeds, have no fear. Our sprints are geared to the newcomer to CW and/or contesting. Virtually everyone including the many veteran contesters who regularly enter our sprints will slow down to YOUR speed to help you make your contacts.

If you are not already a member of NAQCC... membership is FREE! Now is your chance to join the largest QRP CW Club in the world!! We currently have 9000+ members in: All 50 States - 9 VE Provinces - 100 Countries. Sign up on the NAQCC website today (http://naqcc.info/) and receive a handsome certificate, with your membership number on it, which is good for life.

Come join us and have a real good time, and hunt for the NAQCC Anniversary stations, too!

72/73 de Larry W2LJ
NAQCC #35

for NAQCC
http://naqcc.info/

18247. Re: Tiny SWR Indicator for MTR / ATS Rigs

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-15 19:52:30 UTC
From: ohwenzelph@...
Topic: 18243 Message: 18247

Looks interesting. This is the BOM I made up of mouser part numbers and how many I would order (if you order the board it looks like you get 3).
R1,R4. 660-RK73H2ATTD8200F. 10
R2. 652-3314G-1-102E. 3
R3. 660-RK73H2ATTD4701F. 10
R5. 660-RK73H2ATTDD1000F. 10
D1. 720-LSM67K-H2L1-1-Z. 4
D2. 833-BZV55C3V3-TP. 4
D3. 841-BAT46GWJ. 4
SWR1,2,3. 604-WP710A10ID. 10
RF. 604-WP710A10YT. 3

The parts are not all exact matches and the LEDs in particular I am concerned about possibly not being close enough. I don’t have any FT23-43’s at hand but wonder if an FT37-43 could be substituted. 17 turns would give about the same inductance but I wonder if the ratio of 25 to one matters.
Hope that helps someone and let me know if there are any corrections / improvements.
73/72
Jer aa1of

18248. Boxing up the Soda Pop.

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-21 07:20:53 UTC
From: gil@...
Topic: 18248 Message: 18248

Hi, check out my inboxing video ;-)

https://youtu.be/-17N0kM93eI https://youtu.be/-17N0kM93eI

Gil.

18249. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-21 19:27:44 UTC
From: kingery713@...
Topic: 17960 Message: 18249

I am getting close to finishing my SODA-POP & am debating whether I should plug R29 to 12-V as designed, or jumper it to 5-V. I'll likely be running nominally at 12-V. Any thoughts are appreciated!

73,
Rob - AE7AP

18250. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-21 19:54:38 UTC
From: John Sutter
Topic: 17960 Message: 18250

I forget what my findings were on the optimal voltage (~3.5V?), but I have R29 connected to 5V per Steve's recommendation (vs my voltage divider from 12V solution) and it's fine.

I'll be doing the same to my spare PCB build.

My conundrum is which band to build it for. My first build was for 20M.
I'm just wrapping up a couple of NorCal40 respins now.

Did we ever tally which bands the SODA POPS were built for?

- John

On 11/21/2017 11:27 AM, kingery713@... [AT_Sprint] wrote:

I am getting close to finishing my SODA-POP & am debating whether I should plug R29 to 12-V as designed, or jumper it to 5-V. I'll likely be running nominally at 12-V. Any thoughts are appreciated!

73,

Rob - AE7AP

18251. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-21 20:10:00 UTC
From: kingery713@...
Topic: 17960 Message: 18251

I am thinking to jumper R29 to 5-V at the moment. The jumper will also make it easier to disconnect if I decide to recalibrate. I built it for 30m. I want to do the coaster board also - it will likely be 20m. My thought for 30m was to choose a band that works most all of the time - even during contests. My build was deaf until a few minutes ago - I found a bad solder joint on U2. Now I have background noise & sidetone - looking good! Off to work now - I may be testing tonight.

73,
Rob - AE7AP

18252. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-21 20:35:52 UTC
From: ohwenzelph@...
Topic: 17960 Message: 18252

i missed this, when did steve recomend feeding r29 with 5 volts and why? thanks

18253. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-21 22:58:59 UTC
From: jds sutters.com
Topic: 17960 Message: 18253

The message was on June 1, 2017 with the subject: "SODA-POP Playing with drive to Q13"

where I was discussing my investigations where I thought Q13 was being over-driven. I used

a voltage divider on the drive signal, but Steve recommended just using the 5V supply as

a pull-up for R29 as a better approach. Much cleaner than my approach.

> On November 21, 2017 at 12:35 PM "ohwenzelph@... [AT_Sprint]"
<AT_Sprint@yahoogroups.com> wrote:
>
>
>
> i missed this, when did steve recomend feeding r29 with 5 volts and why?
>
> thanks
>
>
>
>
>

>

18254. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-22 02:40:07 UTC
From: ohwenzelph@...
Topic: 17960 Message: 18254

Looks like the trace from r46 to c48 ought to be 5v.

18255. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-22 04:09:48 UTC
From: kingery713@...
Topic: 17960 Message: 18255

I tapped into the trace between R46 & C38. One comment on the schematic (hopefully I sorted this out correctly): C38 on the sidetone circuit (top of schematic) is mislabeled - it should read C48. The true C38 is located down by U3 & is tied to 5V. In other words, there are two C38's on the schematic. I assumed that the correct C38 is down by U3.

I still have some testing to do, but SODA-POP S/N 72 appears to be complete on 30m. I will look forward to plugging it into an antenna tomorrow when the band is open & then I will know for sure that it works. It is putting out 6.4W @ 12-V. The Rx on it is very loud with a nearby antenna running 0.1W - so things look promising!

I didn't have any particular difficulties on the construction (my 2nd surface mount project). The next steps are reprogramming the controller with the modified firmware, casing it, and building the coaster board.

73,
Rob - AE7AP

18256. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-22 16:35:47 UTC
From: ohwenzelph@...
Topic: 17960 Message: 18256

On the schematic I see two C28s...

18257. Re: New project update (slop bucket rig)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-22 18:26:21 UTC
From: steve.kd1jv@...
Topic: 18209 Message: 18257

Making progress.

I've gotten the 20M power output now up to 6.7 watts PEP at 13.8V supply. Much of that improvement was switching to a PN2222A for the PA driver instead of a 2N3904. I was kind of surprised at how much difference that made.

I now have the final boards and most of the parts. I just need to order toroids. Due to the time warp which occurs between Turkey day and Christmas, I doubt I'll get these all kited up and collect orders by Christmas, so I'll probably wait until after the holidays to take orders.

Special "Beta builder" price of $55.00 for the kit. Because the assembly instructions will be a little spartan and you will have to mount the little Si5351 chip this time, only experienced builders set up to do solder paste should order the kit. As usual, I will include some solder, but just enough for touch up. But remember, it will likely be another month before I accept orders.

In the mean time, back to making the assembly drawings...

73 Steve KD1JV

18258. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-22 19:16:54 UTC
From: kingery713@...
Topic: 17960 Message: 18258

My schematic (2/15/2017) shows two C38's. One is by U2 (which I think should be labeled C48) & one is by U3. I see a C28 by Q9 (bottom left), but don't see any others.

Rob - AE7AP

18259. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-23 01:01:15 UTC
From: ohwenzelph@...
Topic: 17960 Message: 18259

Mine shows a second C28 between R26 and R27 “2/15/2017”

18260. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-23 01:16:19 UTC
From: ohwenzelph@...
Topic: 17960 Message: 18260

Ok, I have SODAPOP_Final and SODPOP_Final 1 The schematics do not match
On one there is a C38 that is C30 on the other
On one there is a C28 that is C51 on theother
And R26 and R27 become R40 and R36

My confusion continues to expand..

18261. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-23 01:26:58 UTC
From: ohwenzelph@...
Topic: 17960 Message: 18261

My “SODAPOPfinal 1” schematic seems to match the actual PCB and yes the C38 on the schematic near U2 is labeled C48 on the physical board. So we could say the C38 next to U3 is probably the legitimate one.

18262. Re: [AT_Sprint] SODA-POP Playing with drive to Q13

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-23 01:38:34 UTC
From: kingery713@...
Topic: 17960 Message: 18262

Cool! I was beginning to question my sanity. Your observations & conclusions match mine. I called "CQ" for a while at lunch today. No responses, but I was spotted on RBN at the correct frequency. Tx looks promising - I am still hopeful that Rx will be ok, but have not been able to hear any signals yet - perhaps tomorrow when I am home during the day.
Happy Thanksgiving!
73,
Rob - AE7AP

18263. Re: Tiny SWR Indicator for MTR / ATS Rigs

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-25 17:07:45 UTC
From: ohwenzelph@...
Topic: 18243 Message: 18263

Re the LEDs https://github.com/mfhepp/tinyswr
The stock ones specified at
https://github.com/mfhepp/tinyswr https://github.com/mfhepp/tinyswr
Are
KINGBRIGHT L-934LID
KINGBRIGHT L-934LYD
They do not seem to be available at mouser but
Are available at Reichelt and would cost only 1.1 euro but the shipping is “€27,55” !!!
(You can find the spec sheet for these LEDs on the Reichelt site)
So I looked for substitutes at mouser. I do not understand enough about the circuit or about LEDs to know what is important. There are the original ones I suggested were
604-WP710A10YT
604-WP710A10ID
But the “forward voltage” for them seems higher than the specified ones.

So I found some more possibilities at mouser:
604-WP710A10LSYCKJ3
604-WP710A10LSECKJ3

Or

604-WP710A10LID
604-WP710A10LYD

The first pair might be brighter. If that is bad then the 2nd pair seem to pretty closely match the “stock” ones.

If you understand this all better than I do and are willing to review the specs then I would appreciate it if you would let me know which would be best.
Thanks!

18264. LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-26 01:32:26 UTC
From: kingery713@...
Topic: 18264 Message: 18264

My SODA-POP (30m) is up & running, but I am not confident that I have it properly optimized. I seem to be able to hear signals that are around S5 or better on another radio. I have two questions:

1. The LO at the gate to Q16 is a square wave with slightly rounded corners (seems reasonable) – about 3.5 Vpp. It distorts substantially into a sawtooth when measured at the drain for Q16 (Vpp=4.3) & onwards to the gate for Q13 (Vpp= 4.0). R29 is tied to 5v instead of 12v. Has anyone looked at the LO waveform in this area? Is this distortion normal?
2. I originally adjusted CT-1 & CT-2 in calibrate-peak mode by peaking the audio (square wave) as measured at the speaker connection (without R29 in circuit). The sensitivity seemed poor & there was no signal present at the gate for Q14. I then re-adjusted to peak the waveform at the gate for Q14 (with R29 in circuit to 5-V). The wave (clean sine) peaked at 3.3V at the VFO frequency. The post-mixer waveform Q13/L5 is a complex waveform (makes sense) that seems unstable and/or noisy (doesn’t seem right). It is diminished (1.34V) & not measurable through the IF-filter. I suspect that my alternate adjustment method may be causing the L3/L4 filter to oscillate at the VFO frequency & I think it is an improvement - but it seems also like I should be able to get more out of it. Thoughts?

73,

Rob – AE7AP

18265. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-26 21:22:43 UTC
From: David
Topic: 18264 Message: 18265
Attachments: 1 described; binary payloads are missing from this source WARC

Hi Rob,

Sounds to me like you have have the LO frequency set too far to the edge of the IF filter. Quite a few people (including me) have had that problem. Below is a plot of my IF filter and you'll see that it is quite narrow (about 400Hz) and has steep skirts. It is quite easy to tune to the edge when adjusting the LO frequency. Make sure you are using TP2 as per Steve's instructions for monitoring the amplitude of the IF when you are adjusting it. If you go outside the frequencies on the plot, you've likely gone too far (although there will be a little individual variation).

The signal post mixer will very likely look unstable as you have a complex mix of sum and difference products in one waveform. You would need a spectrum analyser to make sense of this, not an oscilloscope.

Your receive BPF adjustment is probably OK, but you can always re-peak it using any steady on-air signal you can hear.

On the mixer sawtooth waveform, that's correct, the R29/C43 combination acts as an integrator turning a square wave into a sawtooth, so normal.

73

David VK3IL

On 26/11/2017 12:32 PM, kingery713@... [AT_Sprint] wrote:
>
> My SODA-POP (30m) is up & running, but I am not confident that I have
> it properly optimized. I seem to be able to hear signals that are
> around S5 or better on another radio. I have two questions:
>
> 1.   The LO at the gate to Q16 is a square wave with slightly
> rounded corners (seems reasonable) – about 3.5 Vpp. It distorts
> substantially into a sawtooth when measured at the drain for Q16
> (Vpp=4.3) & onwards to the gate for Q13 (Vpp= 4.0).   R29 is tied to
> 5v instead of 12v. Has anyone looked at the LO waveform in this
> area? Is this distortion normal?
>
> 2.I originally adjusted CT-1 & CT-2 in calibrate-peak mode by peaking
> the audio (square wave) as measured at the speaker connection (without
> R29 in circuit).   The sensitivity seemed poor & there was no signal
> present at the gate for Q14. I then re-adjusted to peak the waveform
> at the gate for Q14 (with R29 in circuit to 5-V). The wave (clean
> sine) peaked at 3.3V at the VFO frequency. The post-mixer waveform
> Q13/L5 is a complex waveform (makes sense) that seems unstable and/or
> noisy (doesn’t seem right). It is diminished (1.34V) & not measurable

> through the IF-filter. I suspect that my alternate adjustment method
> may be causing the L3/L4 filter to oscillate at the VFO frequency & I
> think it is an improvement - but it seems also like I should be able
> to get more out of it. Thoughts?
>
> 73,
>
> Rob – AE7AP
>
>
>

18266. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-26 22:55:51 UTC
From: kingery713@...
Topic: 18264 Message: 18266

David: Thank you for the response & good info. They give me increased confidence that I don't have a build problem - just more calibrating to do to get it dialed in. It is good to know that the sawtooth LO waveform is OK & that my alternate tuning method for the RF BPF (peaking at L4/Q14) is likely ok also. Note that I did not peak it using on-air signals - I used the Cal-Peak mode that turns on the U5 TX & LO. I suppose this relies on some Tx leakage getting into the Front-End. With regards to peaking the LO, I believe that you meant to measure the IF at TP-1, not TP-2? I like your graph - what did you use to generate it? I may see if I can come up with something similar by making multiple measurements of the LO freq & Vpp at TP-1.

This is fun stuff - I learn a bit more with each iteration.

73,
Rob - AE7AP

18267. Re: [AT_Sprint] Tiny SWR Indicator for MTR / ATS Rigs

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-27 08:18:32 UTC
From: Martin Hepp
Topic: 18243 Message: 18267

Hi,

basically most 2 mA versions should work fine, and even some standard bulk 3mm LEDs will do. Really critical is the OSRAM SMD LED on the PCB, because most other SMD LEDs in red have a significantly higher forward voltage.

I am optimistic that the following ones will work:

http://www.mouser.de/ProductDetail/Kingbright/WP710A10LID/5
http://www.mouser.de/ProductDetail/Kingbright/WP710A10LSRD/5

By the way, Heinz/HB9BCB proposes the use of two green, one yellow and one red LED to focus on indicating severe mismatches. See his report at
http://reflector.sota.org.uk/t/ultralight-swr-indicator/15859/71

Hope that helps!

73 de Martin, DK3IT

> On 25 Nov 2017, at 18:07, ohwenzelph@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
>
> Re the LEDs
> The stock ones specified at
> https://github.com/mfhepp/tinyswr
> Are
> KINGBRIGHT L-934LID
> KINGBRIGHT L-934LYD
> They do not seem to be available at mouser but
> Are available at Reichelt and would cost only 1.1 euro but the shipping is “€27,55” !!! (You can find the spec sheet for these LEDs on the Reichelt site)
> So I looked for substitutes at mouser. I do not understand enough about the circuit or about LEDs to know what is important. There are the original ones I suggested were
> 604-WP710A10YT
> 604-WP710A10ID
> But the “forward voltage” for them seems higher than the specified ones.
>
> So I found some more possibilities at mouser:
> 604-WP710A10LSYCKJ3
> 604-WP710A10LSECKJ3
>
> Or
>
> 604-WP710A10LID
> 604-WP710A10LYD
>
> The first pair might be brighter. If that is bad then the 2nd pair seem to pretty closely

match the “stock” ones.
>
> If you understand this all better than I do and are willing to review the specs then I would appreciate it if you would let me know which would be best.
> Thanks!
>

18268. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-27 09:02:56 UTC
From: David
Topic: 18264 Message: 18268

No problems Rob.

Yes, I meant TP1 (as per Steve'e instructions), I read the instructions too fast while responding!

The graph was generated from the control program for my VNA (a N2PK VNA with software called MyVNA). I measured the transmission, S12, across the filter to help understand where the LO needed to be for my rig. So not really useful without the VNA. I'd suggest just using Excel to create a chart.

73,

David VK3IL

On 27/11/2017 9:55 AM, kingery713@... [AT_Sprint] wrote:
>
> David:
>
> Thank you for the response & good info. They give me increased
> confidence that I don't have a build problem - just more calibrating
> to do to get it dialed in. It is good to know that the sawtooth LO
> waveform is OK & that my alternate tuning method for the RF BPF
> (peaking at L4/Q14) is likely ok also. Note that I did not peak it
> using on-air signals - I used the Cal-Peak mode that turns on the U5
> TX & LO. I suppose this relies on some Tx leakage getting into the
> Front-End. With regards to peaking the LO, I believe that you meant
> to measure the IF at TP-1, not TP-2? I like your graph - what did you
> use to generate it? I may see if I can come up with something similar
> by making multiple measurements of the LO freq & Vpp at TP-1.
>
> This is fun stuff - I learn a bit more with each iteration.
>
> 73,
> Rob - AE7AP
>

18269. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-28 00:42:15 UTC
From: kingery713@...
Topic: 18264 Message: 18269

David: The N2PK VNA looks like a fun (and challenging) project. Today I flashed U6 with the PD7LOL firmware (very nice) and recalibrated - following the instructions explicitly this time, except that I peaked the BPF at TP-1, instead of by ear. I think it has more sensitivity (I wish I had a repeatable signal source). The BPF is very different at L4/Q14. It is now 320 mv (instead of 3.3 V). It seems to have better sensitivity now. I am guessing that I had the BPF oscillating before, which may not have been quite right. I will next try some qso's & then see about boxing it up if all looks good. Thank you for the help.

73,
Rob - AE7AP

18270. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-11-28 01:45:28 UTC
From: David
Topic: 18264 Message: 18270

Good to hear Rob.

Yes, the N2PK VNA is an excellent instrument, but a very challenging build (more than 300 SMT components!) I've found it very useful for all sorts of project, just wish it had a bit more bandwidth. There is a presentation on my build on my blog here: http://vk3il.net/miscellaneous/presentations/ if you are interested.

I've been working on multi-banding the SodaPop with Camil PD7LOL for some time and am now very close to a complete 10 band SodaPop with auto-band switching. I'll write it up and put it on my blog soon.

Enjoy using it, it's a great little rig.

73

David VK3IL

On 28/11/2017 11:42 AM, kingery713@... [AT_Sprint] wrote:
>
> David:
>
> The N2PK VNA looks like a fun (and challenging) project. Today I
> flashed U6 with the PD7LOL firmware (very nice) and recalibrated -
> following the instructions explicitly this time, except that I peaked
> the BPF at TP-1, instead of by ear. I think it has more sensitivity
> (I wish I had a repeatable signal source). The BPF is very different
> at L4/Q14. It is now 320 mv (instead of 3.3 V). It seems to have
> better sensitivity now. I am guessing that I had the BPF oscillating
> before, which may not have been quite right. I will next try some
> qso's & then see about boxing it up if all looks good. Thank you for
> the help.
>
> 73,
> Rob - AE7AP
>

18272. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-02 20:32:22 UTC
From: dl2arl@...
Topic: 18264 Message: 18272

Dear OM David, dear Gents,

I am at populating the Soda Pop Coaster board the slow way: part-by-part as I manage to find them here and there. Might be finishing in the next decade or so...

..was just picking up the 25MHz cristal to solder it in place as I read your message. Will a 10 Band SodaPop'eye fly with so little MHz? Trying to avoid having to unsolder that nasty little bit whenever taste comes to soup it up according to your blog.

So please tell me in advance: I am very curious. Will your 10 bander want to have another crystal?

The project you and Camil are workin on sounds GREAT. The only other thing I would change with the SodaPop is the mixer: wish it would have a balanced(!) NE612 again, like my old ATS3. It makes so much difference here in old Europe where bands are heavily crowded!

73, Razvan DL2ARL

18273. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-02 23:08:10 UTC
From: David
Topic: 18264 Message: 18273

Razvan,

The model we've been working on doesn't change the underlying circuit, but simply moves the band-specific components and the PA transistors to a plug in module. There are a couple of minor changes on the main board that are needed to expand the band coverage substantially. The 25 MHz crystal is fine as the Si5351 multiplies this up substantially to generate the clock signals, so no changes are needed there. I haven't changed the mixer as the goal was to make this as minimal change as possible. Changing the mixer could be done, but that would either need a new main PCB design, or moving the mixer to the plug in module too - starting to make the plug in module bigger than desirable.

In terms of populating the coaster with a multi-band version in mind, the components that move to a plug in module on my version are the RX BPF, TX load network, BS170s, C33, Q9, R17, L6 and D3. The two minor changes needed to the main board are:
- R50 reduced to 27 ohm (due to increased current draw on the 5V line)
- C43 reduced to 33pF (to better balance mixer drive across 1.8 - 30 MHz)

I have all 10 bands working now with around 5W out on each at 12V. Receive sensitivity is OK, but a little lower on the high bands. I'm still sorting out a couple of minor alignment issues and working on a couple of harmonics that are a bit higher than I like on the higher bands, but hope to finish in the next few weeks and have it written up.

73

David VK3IL

On 3/12/2017 7:32 AM, dl2arl@... [AT_Sprint] wrote:
>
> Dear OM David, dear Gents,
>
> I am at populating the Soda Pop Coaster board the slow way:
> part-by-part as I manage to find them here and there. Might be
> finishing in the next decade or so...
>
> ..was just picking up the 25MHz cristal to solder it in place as I
> read your message. Will a 10 Band SodaPop'eye fly with so little MHz?
> Trying to avoid having to unsolder that nasty little bit whenever
> taste comes to soup it up according to your blog.
>
> So please tell me in advance: I am very curious. Will your 10 bander
> want to have another crystal?
>

> The project you and Camil are workin on sounds GREAT. The only other
> thing I would change with the SodaPop is the mixer: wish it would have
> a balanced(!) NE612 again, like my old ATS3. It makes so much
> difference here in old Europe where bands are heavily crowded!
>
> 73, Razvan DL2ARL
>
>

18274. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-02 23:39:19 UTC
From: kingery713@...
Topic: 18264 Message: 18274

David & Razvan: I am looking forward to your write-up & eventually building the coaster board - I am definitely interested in band modules. Thank you both for all of the great work. The modified MCU code is excellent - it makes the encoder very nice to use & has introduced me to Arduino.

73,
Rob - AE7AP

18275. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-03 19:33:34 UTC
From: dl2arl@...
Topic: 18264 Message: 18275

Great things to hear! Thank you folks! This goes in a very pleasant direction.

One thing to keep in mind when populating the coaster board is that in some cases it is very difficult if not impossible to purchase only the needed number of parts from the one or the other sort. This is how me, a humble person never intending to open up a flourishing electronic retail business, I am now in possession of several dozens if not a hundred of fancy SMD parts I will probably never need in my life except the one or... three I will solder on the coaster board.

Added to this comes the fact that these SMD Parts nowadays are marked in a very weird style, and I take bets on any odds, that in 2 years from now I will not know any longer what those 99 pieces of three-legged SMD insects are, the ones that have long fallen out of their envelope only to sport a secret code "2A" written on them barely readable without a microscope.

On the other side, I wish I would have found a source for the filter crystals and bought several dozen if not 100 of them just to have enuf to sort from. I have plenty of sorted crystals for 9MHz, but none for the SodaPop and am thinking it would be worth for me to redo the intermediate frequency to suit what I have.

Maybe a group buy (like the memorable one with the 80m Band parts for the MTR5! : thanks Shirley!!!) would be a solution.

On the other side, I already have those dozens and dozens of parts out of which I will probably never need more than 5. If there is interest, I will put up a list, never intending to make profit on that electronic retail shop I was speaking above ;-), but in the sole intention to help and get helped (ham spirit from it's sweetest side).

Go ahead : do, or do not; there is no try (OM Yoda).

73, Razvan DL2ARL

18276. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-04 01:00:58 UTC
From: kingery713@...
Topic: 18264 Message: 18276

Razvan: I will participate in a group-buy - particularly for the hard-to-get items like the display & the module board PCB's that I am guessing you guys have developed. Our group may, however, be rather small - perhaps a good BOM would be easier, as most of the components (resistors, capacitors, etc.) can be purchased at a reasonable cost through Digikey. Someone (perhaps you or David?) posted a partial BOM earlier - I downloaded it & have been very slowly adding components that look to be a likely fit.

On a side-note: I came up with a scheme where most of my components are in 3-ring binders with clear-plastic inserts used by baseball card collectors. I have labeled zip-locks that slide into the card pockets. I place a copy of the datasheets in the binders also. It keeps everything nicely organized & doesn't take up much space.

73,
Rob - AE7AP

18277. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-04 21:01:52 UTC
From: dl2arl@...
Topic: 18264 Message: 18277

Hi Rob,
Sorry to say, I have nothing to do with the development of the PCB-modules (wish I had)
It is Camil Staps who developed the PCBs for the SP and David, I think, who had the idea of an "automatic band switching", both hardware implementation on the PCB module and how to read it from within the firmware (hope I got that right: speaking from memory and since I grew older, I began mixing things up)

As for a group buy, I am on the wrong side of the pond to start an action like this. Most probably, the postage of the parts would cost more than they are worth. Nevertheless I will see what parts I have in too many (mostly semiconductors) and see what can be done to send them in a normal envelope.

I found the display on ePay, cheap, but it has cost me double, because the first take was the wrong one: what I received was:

2PCS 0.56 inch 4 digit Red led display 7 segment Common cathode GOOD QUALITY http://www.ebay.de/itm/2PCS-0-56-inch-4-digit-Red-led-display-7-segment-Common-cathode-GOOD-QUALITY/291549739511?ssPageName=STRK%3AMEBIDX%3AIT&_trksid=p2057872.m2749.l2649

and what I need is:

2PCS 0.36inch 7 Segment 4 Digit Common Cathode 0.36" RED LED digital display http://www.ebay.de/itm/2PCS-0-36inch-7-Segment-4-Digit-Common-Cathode-0-36-RED-LED-digital-display/162746186414?ssPageName=STRK%3AMEBIDX%3AIT&_trksid=p2057872.m2749.l2649

As you see, I am still learning and have now 2pcs LED displays that can be read from quite a distance and very far indeed, almost bigger than the SodaPop-PCB itself, HIHI. Anyone shortsighted?

In the meanwhile I found the crystals on ePay too. Well, it was my fault, sort of a side effect of a number-topsy-turvy in the manual.
At some unlucky place in the manual the text speaks about:

This crystal has been marked with a red marker to help keep it from being mixed up
with the 4.9512 xtals..

Unlucky me did not double-check neither with the schematics nor the BOM where the right value of the crystals is given to 4.9152.

So for quite a long time I vainly sought on the web for unobtainable crystals with the wrong frequency. Now that I recognized my mistake, I found some on ePay cheap enuf to buy couple of dozen and have fun selecting. I probably will be able to select 2..3 sets within 10Hz and maybe couple more within 15..20Hz, but can not promise anything yet until I see what I get from that remote BY land. It can also happen, that for this low price, they only send me scrap and the factor of merit of the crystals will be so low, that they will be of no use for a filter. But the price tag being so low, it is worth a try. No try, no see, only pay is sure... At least, I will have many and quite a few more "red marked crystals"

just good enough for a BFO..

73, Razvan

18278. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-04 21:24:03 UTC
From: Camil Staps
Topic: 18264 Message: 18278

> It is Camil Staps who developed the PCBs for the SP and David, I think, who had the idea of an "automatic band switching", both hardware implementation on the PCB module and how to read it from within the firmware (hope I got that right: speaking from memory and since I grew older, I began mixing things up)
That would be too much credits for me. I developed initial versions of the band module PCB, which David indeed extended with automatic band switching but also improved tremendously performance- and space-wise. He has also tested his version on many more bands (10 I believe) whereas I have only made them for 40m and 20m for now.

If I'm not mistaken, my initial measurements were faulty and my version now performs equally well (at least on 40m and 20m). However, it doesn't look like I have the time in the coming half a year at least to really test this properly or to build modules for other bands.

Long story short: you're much better off using David's modules.

73,
Camil, PA5ET

18279. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-05 01:38:33 UTC
From: kingery713@...
Topic: 18264 Message: 18279

Razvan: That all sounds good & yes - we can get most of the items here easily. I am looking forward to learning how to sort crystals, etc. I am not, however, sure which to buy - or if it matters. I am inclined to get the first one in the list below - it appears to be the most readily available & has the widest temperature range:

CL=18pf, ESR=120
https://www.digikey.com/product-detail/en/cts-frequency-controls/ATS049B-E/CTX914-ND/2292896 https://www.digikey.com/product-detail/en/cts-frequency-controls/ATS049B-E/CTX914-ND/2292896

CL=20pf, ESR=120
https://www.digikey.com/product-detail/en/cts-frequency-controls/ATS042/CTX403-ND/280183
https://www.digikey.com/product-detail/en/cts-frequency-controls/ATS042/CTX403-ND/280183

CL=18pf, ESR=120
https://www.digikey.com/product-detail/en/cts-frequency-controls/ATS049B/CTX897-ND/2292862
https://www.digikey.com/product-detail/en/cts-frequency-controls/ATS049B/CTX897-ND/2292862

73,
Rob - AE7AP

18280. Re: [AT_Sprint] LO waveform & CT1/CT2 adjustment

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-05 21:19:34 UTC
From: dl2arl@...
Topic: 18264 Message: 18280

..you are probably right, dear OM Rob, go ahead.
But they are quite expensive. In my opinion, to get 4 pcs. spaced not more than 10Hz from eachother, you will need more than only 10 pcs. Probably 50 will do.
This does NOT mean that from the whole bunch of 50 you will get only 4 good and the rest will be scrap. You might get several sets spaced tight enough for a filter, depending on luck and what quality you receive. Your odds are better, much better than mine: I was thinking to order from remote BY land.
Not only the resonant frequency is important. The crystals also differ in terms of factor of merit. Harder to measure, but if the factor of merit of the crystals is too low, you will get a flat response and probably also a higher pass-band attenuation.

Good luck!
73, Razvan

18281. Soda Pop parts Help

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-08 15:42:31 UTC
From: Colin Tuckley
Topic: 18281 Message: 18281

I've just started getting the parts together for my Soda Pop Coaster.

I've sorted most things out but I need the part numbers for the 25MHz
crystal and the encoder.

Anyone got the information please?

73, Colin G8TMV

--
Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
Debian Developer | +44(0)7799 143369 | 0xFA0C410738C9D903

18282. Re: Soda Pop parts Help

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-08 19:15:37 UTC
From: kingery713@...
Topic: 18281 Message: 18282

Colin: I am slowly doing the same as you. I was scoping this part out for the encoder:

https://www.digikey.com/products/en?keywords=102-1767-ND
https://www.digikey.com/products/en?keywords=102-1767-ND

I don't know if it is correct or not - but it seems likely. Let me know what you find out.

73,
Rob - AE7AP

18283. Re: [AT_Sprint] Re: Soda Pop parts Help

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-08 19:37:58 UTC
From: Shirley Márquez Dúlcey
Topic: 18281 Message: 18283

I think Steve used cheap encoders from China rather than anything you can buy from Mouser or Digi-Key. (They're 50-60 cents each rather than $2 or more.) Arduino starter kits often come with those same encoders installed on a small circuit board with header pins so you can plug it into a solderless breadboard. You can get the encoders, either bare or on boards, from Banggood, AliExpress, or sellers on Amazon or eBay.

https://www.banggood.com/search/rotary-encoder.html

On Fri, Dec 8, 2017 at 2:15 PM, kingery713@gmail.com [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
> Colin:
> I am slowly doing the same as you. I was scoping this part out for the
> encoder:
>
> https://www.digikey.com/products/en?keywords=102-1767-ND
>
>
> I don't know if it is correct or not - but it seems likely. Let me know
> what you find out.
>
> 73,
> Rob - AE7AP
>
>
>

18284. Re: [AT_Sprint] Re: Soda Pop parts Help

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-08 19:39:17 UTC
From: John Sutter w1jds
Topic: 18281 Message: 18284

My plan was to remove one of the cheap Chinese encoders from its PCB.
I have not verified this yet.

I was thinking of reverse engineering the schematic for the coaster PCB
to feel better about it. Most parts are near the same location sometimes with
different references, though some are just not there.

I started to build it but was finding I was spending too much time tracking
traces to ensure I got the right part in the right spot.

On 12/8/2017 11:15 AM, kingery713@... [AT_Sprint] wrote:

Colin:

I am slowly doing the same as you. I was scoping this part out for the encoder:

https://www.digikey.com/products/en?keywords=102-1767-ND

I don't know if it is correct or not - but it seems likely. Let me know what you find out.

73,

Rob - AE7AP

--
John Sutter
W1JDS CM87xi

18285. Re: [AT_Sprint] Re: Soda Pop parts Help

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-08 20:12:50 UTC
From: Colin Evans
Topic: 18281 Message: 18285
Attachments: 1 described; binary payloads are missing from this source WARC

I don't think there's anything special about the encoders, eBay is flooded with them. The main difference is number of clicks per rotation, I think mine are 24.

As encouragement, it's very doable to build the coaster board, I finally completed my Soda Pop Coaster a couple of weeks or so ago.

73, Colin, M1BUU

18286. Re: [AT_Sprint] Re: Soda Pop parts Help

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-08 20:39:00 UTC
From: wayne.wheeler@...
Topic: 18281 Message: 18286

John- After you finish "reverse engineering" the "coaster" Soda Top build, if you would be able to upload some sort of instructions to the files section (for those of us getting to this "eventually") it would be very helpful.

Wayne

18287. Re: [AT_Sprint] Re: Soda Pop parts Help

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-09 00:34:00 UTC
From: kingery713@...
Topic: 18281 Message: 18287

Colin: I really like your case - it is super classy. Do you mind sharing its origins?

73,
Rob - AE7AP

18288. Re: Soda Pop parts Help

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-10 17:11:13 UTC
From: ohwenzelph@...
Topic: 18281 Message: 18288

Consider mouser parts

559-FOXS160-20-LF

815-ABL-4.9152-B2

581-CX3225SB25DFFFCC

18289. NAQCC December Sprint this Tuesday Evening

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-12 02:43:15 UTC
From: Larry W2LJ
Topic: 18289 Message: 18289

The December NAQCC sprint is this coming Tueesday evening local time (December 12th, EST - 8:30-10:30PM, CST - 7:30-9:30PM, MST - 6:30-8:30PM, PST - 5:30-7:30PM), which translates as Wednesday, December13th, 0130 to 0330Z in all cases.

For all the "official" information, please go to:

http://naqcc.info/sprint/sprint201712.html

There you will find all the details as to time, frequencies and other important information.

Certificates: SWA (simple wire antennas) certificates by call area, VE and DX for 1st, 2nd and 3rd place finishers (New!). A Certificate for top score in the GAIN antenna category.

Prizes: Too many to list!! - check out the prizes page on our website.

This is a monthly event that caters to the CW veteran, the CW newcomer, straight key and bug fans. All are welcome to participate (this includes QRO); but you must use QRP power levels to compete for awards.

If you've been hesitant to join in our sprints because you hear other sprints running at breakneck speeds, have no fear. Our sprints are geared to the newcomer to CW and/or contesting. Virtually everyone including the many veteran contesters who regularly enter our sprints will slow down to YOUR speed to help you make your contacts.

If you are not already a member of NAQCC... membership is FREE! Now is your chance to join the largest QRP CW Club in the world!! We currently have 9000+ members in: All 50 States - 9 VE Provinces - 100 Countries. Sign up on the NAQCC website today (http://naqcc.info/) and receive a handsome certificate, with your membership number on it, which is good for life.

Come join us and have a real good time, and hunt for the NAQCC Anniversary stations, too!

72/73 de Larry W2LJ
NAQCC #35

for NAQCC
http://naqcc.info/

18290. Multi-band SodaPop

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-17 03:37:46 UTC
From: David Giddy
Topic: 18290 Message: 18290

All,

I've now completed my multi-banding project on the SodaPop and written it up on my blog if anyone is interested:

http://vk3il.net/projects/multi-banding-the-kd1jv-soda-pop/

So I now have a 10 band SodaPop with approx 5W out on all bands and acceptable emissions.

73,

David VK3IL.

18291. Re: Multi-band SodaPop

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-17 04:36:18 UTC
From: ohwenzelph@...
Topic: 18290 Message: 18291

WOW! Some of the links liked the digikey one don’t work for me and theproblem with band modules is that I lose them but that is incredible work.
JT aa1of

18292. Re: Multi-band SodaPop

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-17 06:39:35 UTC
From: kingery713@...
Topic: 18290 Message: 18292

David: That is a very impressive project! Your write-up is also very nice - I am hopeful that I will be able to construct something similar with my coaster board.

73,
Rob - AE7AP

18293. Re: [AT_Sprint] Re: Multi-band SodaPop

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-18 01:37:44 UTC
From: David
Topic: 18290 Message: 18293

Thanks. The Digikey link should be working OK - it sometimes takes up to
1 minute to load, so perhaps try again and wait a while. OK on losing
band modules - certainly a potential problem! That's why I chose a case
that could hold all the band modules as well - hopefully I won't lose any...

73 David VK3IL

On 17/12/2017 3:36 PM, ohwenzelph@... [AT_Sprint] wrote:
>
> WOW!
>
> Some of the links liked the digikey one don’t work for me and
> theproblem with band modules is that I lose them but that is
> incredible work.
> JT aa1of
>

18294. Re: [AT_Sprint] Re: Multi-band SodaPop

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-18 01:38:49 UTC
From: David
Topic: 18290 Message: 18294

Thanks Rob. Happy to answer questions as needed.

73 David VK3IL

On 17/12/2017 5:39 PM, kingery713@... [AT_Sprint] wrote:
>
> David:
>
> That is a very impressive project! Your write-up is also very nice -
> I am hopeful that I will be able to construct something similar with
> my coaster board.
>
> 73,
> Rob - AE7AP
>

18295. AST-3A For Sale

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-19 12:09:26 UTC
From: ai5rb@...
Topic: 18295 Message: 18295

I have a pristine ATS-3A "Sprint III" for sale. This is the 4 band 80-40-30-20M version. Beautifully built and works great! Power connector with Power Poles and all 4 plug-in band modules included. It has been gently used, never outdoors and comes from a non-smoking shack.
$225 shipped, CONUS, PayPal only.

18296. NAQCC MilliWat Sprint Wednesday Night

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-20 01:18:36 UTC
From: Larry W2LJ
Topic: 18296 Message: 18296

The December special MilliWatt Sprint is this coming Wednesday evening local time (December 20th,
EST - 8:30-10:30PM, CST - 7:30-9:30PM, MST - 6:30-8:30PM, PST - 5:30-7:30PM),
which translates as Thursday, December 21st, 0130 to 0330Z in all cases.

For all the "official" information, please go to:

http://naqcc.info/sprint/sprint201712mw.html

There you will find all the details as to time, frequencies and other important information.

If you've been hesitant to join in our sprints because you hear other sprints running at breakneck speeds, have no fear. Our sprints are geared to the newcomer to CW and/or contesting. Virtually everyone including the many veteran contesters who regularly enter our sprints will slow down to YOUR speed to help you make your contacts.

If you are not already a member of NAQCC... membership is FREE! Now is your chance to join the largest QRP CW Club in the world!! We currently have 9000+ members in: All 50 States - 9 VE Provinces - 100 Countries. Sign up on the NAQCC website today (http://naqcc.info/) and receive a handsome certificate, with your membership number on it, which is good for life.

72/73 de Larry W2LJ
NAQCC #35

Come join us and have a real good time!

18297. ATS3

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-31 02:38:32 UTC
From: jlgray.kr3ep@...
Topic: 18297 Message: 18297

I was given several ATS3 rigs and a 40 meter rig by a member. ! smoked as soon as power was put to it. The other ATS3 works beautifully and is a lot of fun as is the 40 meter rig. I believe his name is Ron. I wanted to say thank you very much.
I got the rig ready, with a T1 Elecraft auto tuner, and 50 ft of wire. I got several battery packs to power it. Now I am looking for a small paddle or straight key to go with it. I have a pack that it all fits in and I intend to take it on my recumbent trike as a rig to setup and operate from whatever trail or park I am riding in.
Thanks guys Jeff KR3EP

18298. Re: [AT_Sprint] ATS3

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-31 03:13:05 UTC
From: Hank Greeb
Topic: 18297 Message: 18298

Watch that T1 with the ATS3. It can present some very wierd impedances which can fry the finals if you tune up with 12 volts on the power supply. Best thing is to tune with no more than 9 volts, and some say 6 volts during tuning. Or, use a Tayloe bridge to measure SWR, which will show no more than SWR=2 to the transceiver. I've never had a problem with my AT Sprint original mode or an AT Sprint-3b

Each of the ATS-3's are multiband rigs. Maybe you've been given only 1 band module for each of them? Anyway even with only 1 band module, you should have lotsa fun with the rigs.

Note that for 2018 ARRL is sponsoring a Grid Square Challenge. If you live anywhere near a juncture of 2 or a point where 4 Squares meet, you could have fun plunking down on a spot where 2 or four corners meet and becoming and instant magnet station. And, if you're near a state or national park there's always parks On the Air where you can be a magnet station by publicizing your intent to operate from a park. I can tell you that operating from a park can be very much fun if you publicize yourself and thereby become an instant magnet station!

Note,there's much info on the AT Sprint series of rigs on the files section of this reflector. Just ask if you're having trouble finding what you're looking for. there are NO stupid questions, and many folks will tell you where to go to find the documentation for the rigs you have.

72/73 de n8xx Hg
QRP >99.44% of the time

On 12/30/2017 9:38 PM, jlgray.kr3ep@... [AT_Sprint] wrote:
> I was given several ATS3 rigs and a 40 meter rig by a member. ! smoked
> as soon as power was put to it. The other ATS3 works beautifully and
> is a lot of fun as is the 40 meter rig. I believe his name is Ron. I
> wanted to say thank you very much.
>
> I got the rig ready, with a T1 Elecraft auto tuner, and 50 ft of wire.
> I got several battery packs to power it. Now I am looking for a small
> paddle or straight key to go with it. I have a pack that it all fits
> in and I intend to take it on my recumbent trike as a rig to setup and
> operate from whatever trail or park I am riding in.
>
>   Thanks guys Jeff KR3EP

18299. Re: ATS3

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2017-12-31 23:06:25 UTC
From: jgaffke@...
Topic: 18297 Message: 18299

You might replace the 2n7000's in the final with BS170's, which are more robust and what have been used in all the MTR rigs (the final is otherwise identical). Quite possibly the 2n7000's that smoked if you fed it more than 12v or drove a funny load.

18300. tinySWR in MTR5

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-01 14:46:47 UTC
From: Fred Maas
Topic: 18300 Message: 18300
Attachments: 1 described; binary payloads are missing from this source WARC

Attached photo shows how I installed the indicator in an MTR5. Also shown is the homemade folding cover to protect the face of the radio during transit, which then serves as log support during a SOTA activation.

HNY

Fred KT5X / WS0TA / W5YA

18301. tinySWR indicator by DK3IT

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-01 14:46:47 UTC
From: Fred Maas
Topic: 18301 Message: 18301
Attachments: 1 described; binary payloads are missing from this source WARC

Attached photo shows the "tinySWR" indicator installed in an MTR3. It works perfectly. You can search "tinySWR" on google to find a webpage from which there are instructions, links to parts list and the circuitboard.

HNY all,

- fred KT5X / WS0TA / W5YA

18302. RE: [AT_Sprint] Re: ATS3

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-01 16:02:47 UTC
From: Steven Weber
Topic: 18297 Message: 18302

Yes, the BS170’s have proven to be very reliable. They can handle a lot more current then the 2N7000’s. When operating at 5W out and into a high SWR load, the current goes beyond what the 2N7000’s can handle.

WARNING! When replacing the 2N7000’s with BS170’s, the Drain and Source pins are reversed. Gate is the middle pin in both devices, so you just have to install the BS170’s “backwards” of the 2N7000 outline.

Steve KD1JV

You might replace the 2n7000's in the final with BS170's, which are more robust and what have been used in all the MTR rigs (the final is otherwise identical).
Quite possibly the 2n7000's that smoked if you fed it more than 12v or drove a funny load.

This email has been checked for viruses by AVG.
http://www.avg.com

18303. Re: [AT_Sprint] tinySWR indicator by DK3IT [1 Attachment]

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-01 23:12:53 UTC
From: Martin Hepp
Topic: 18301 Message: 18303

Dear Fred,
Thanks for sharing your report!

The URI of the GitHub page with all instructions and a link for ordering the PCB is here:

https://github.com/mfhepp/tinyswr

73 de Martin, DK3IT

18304. Re: [AT_Sprint] ATS3

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-01 23:18:55 UTC
From: Martin Hepp
Topic: 18297 Message: 18304

Dear Steve:

I have a related question: I can power my MTR-3B (with BS170s/LNR build) from 9 and 12 V from my new DC-DC step-up converter with input and output filters. Now, I would like to use the rig with the Elecraft T1 auto-tuner.
Will it be better to

a) use 9 V and give dots or dashes with the paddle
or
b) use 12 V and use the dedicated tuning mode of the MTR?

If I understand the documentation correctly, the MTR uses something like PWM to reduce the stress on the PA in tuning mode if the supply voltage is greater or equal to 10V.

Thanks for your advice!

73 de Martin, DK3IT

18305. Re: [AT_Sprint] tinySWR indicator by DK3IT

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-02 00:40:37 UTC
From: MOB
Topic: 18301 Message: 18305

Martin,

The BOM on the Github page includes alternative part numbers for the
LED's, apparently because the original LED's could not be sourced from a
US supplier. Has anyone tested these parts in the circuit and the issue
been resolved? I'd like to know that the LED's have been verified to
work with the tinySWR board before ordering.

Thanks for your help,
Michael KD4SGN

On 1/1/2018 6:12 PM, Martin Hepp mfhepp@... [AT_Sprint] wrote:
> Dear Fred,
> Thanks for sharing your report!
>
> The URI of the GitHub page with all instructions and a link for ordering the PCB is here:
>
>
> https://github.com/mfhepp/tinyswr
>
>
> 73 de Martin, DK3IT
>
>
>
>
> ------------------------------------
> Posted by: Martin Hepp <mfhepp@...>
> ------------------------------------
>
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> ------------------------------------
>
> Yahoo Groups Links
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>

18306. Re: [AT_Sprint] ATS3

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-02 01:10:57 UTC
From: Hank Hank Greeb
Topic: 18297 Message: 18306

Don't know the official answer, but I've not had a problem with a pack of 8 NiMH cells (9.6 v nominal, 10.8 volts fully charged) intol an AT-Sprint original version (with 2N7000's) when using a T1 tuner. I use a hand key, or a computer keyer. It shows quite a range of SWR while it tunes. I just hold the key down and let it do its thing. They say the BS170's are Robitussin enough to handle 12 V to the finals. I still like to baby the rig, and would use 9 volts (nominal) during the tuneup.

Good luck with your endeavors! Hope to work you from the field now and then.

72/73 de n8xx Hg
QRP >99.44% of the time

On 1/1/2018 6:18 PM, Martin Hepp mfhepp@... [AT_Sprint] wrote:

> Dear Steve:
>
> I have a related question: I can power my MTR-3B (with BS170s/LNR build) from 9 and 12 V from my new DC-DC step-up converter with input and output filters. Now, I would like to use the rig with the Elecraft T1 auto-tuner.
> Will it be better to
>
> a) use 9 V and give dots or dashes with the paddle
> or
> b) use 12 V and use the dedicated tuning mode of the MTR?
>
> If I understand the documentation correctly, the MTR uses something like PWM to reduce the stress on the PA in tuning mode if the supply voltage is greater or equal to 10V.
>
> Thanks for your advice!
>
> 73 de Martin, DK3IT
>
>
>
>
> ------------------------------------
> Posted by: Martin Hepp <mfhepp@...>
> ------------------------------------
>
>
> ------------------------------------
>
> Yahoo Groups Links
>

>
>
>

18307. MTR 5 Problem

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-02 15:38:45 UTC
From: reillyjf@...
Topic: 18307 Message: 18307

New build: when powered up, the 5v regulator is only putting out 0.5 volts (9v input). Replaced the regulator twice, and checked all of the components in the 5v system. Resistance at the 5v output is around 30k ohm.

Any ideas? Thanks,
- 73, John, N0TA

18308. RE: [AT_Sprint] MTR 5 Problem

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-02 16:43:41 UTC
From: Steven Weber
Topic: 18307 Message: 18308

Bad parts are rarely, if ever the problem.

There are three possible causes.
1) Not enough input voltage. What's the input voltage at the regulator? Despite my "it's never a bad part" claim, I have seen at least one case where the PTC fuse developed a high resistance
2) A bad connection to one of the voltage divider resistors for the regulator.
3) Something is dragging down the supply by drawing excessive current. That could be caused by one of the IC's being installed wrong way around. U6, the analog switch is a likely candidate
Steve KD1JV

New build: when powered up, the 5v regulator is only putting out 0.5 volts (9v input). Replaced the regulator twice, and checked all of the components in the 5v system. Resistance at the 5v output is around 30k ohm.

Any ideas? Thanks,
  - 73, John, N0TA

This email has been checked for viruses by AVG.
http://www.avg.com

18309. Re: [AT_Sprint] MTR 5 Problem

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-02 16:46:28 UTC
From: Colin Tuckley
Topic: 18307 Message: 18309

On 02/01/18 15:38, John wrote:

> New build: when powered up, the 5v regulator is only putting out 0.5
> volts (9v input).

Sounds like it's in over current shutdown. Take another look at
everything on the 5v rail and check for shorts everywhere it goes.

73, Colin G8TMV

--
Colin Tuckley | +44(0)1223 830814 | PGP/GnuPG Key Id
Debian Developer | +44(0)7799 143369 | 0xFA0C410738C9D903

18310. Trade a built SodaPop for unbuilt MTR 2, 3, 5 or ATS kit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-08 16:44:23 UTC
From: W3DX@...
Topic: 18310 Message: 18310

Hi Guys:

I just built my SodaPop radio and am looking for another kit to build. I'm looking to trade the SodaPop for one of Steve's other radios in kit form. It could be a Mountain Topper 2, 3, 5 or an ATS 3 or 4. I'm especially looking for the MTR 3 or 5.

I'd also be willing to throw in a few dollars into a trade.

73,

Rob, W3DX

18311. Re: [AT_Sprint] Trade a built SodaPop for unbuilt MTR 2, 3, 5 or ATS kit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-08 17:50:19 UTC
From: Steve Saslow
Topic: 18310 Message: 18311

Hello! I have an MTR 5B unbuilt, all in its original and nearly all unopened/as-received packaging, plus the case LnR made for it. I think I printed out the construction and operating instructions, too. Am seriously considering selling it; I did build a SodaPop and am pretty happy with it, and do not want to get another - - it was quite a process to make an appropriate and decent case for it, for me...

73 HNY

-Steve Saslow k7ew Portland OR

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of W3DX@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Monday, January 8, 2018 8:44 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Trade a built SodaPop for unbuilt MTR 2, 3, 5 or ATS kit

Hi Guys:

I just built my SodaPop radio and am looking for another kit to build. I'm looking to trade the SodaPop for one of Steve's other radios in kit form. It could be a Mountain Topper 2, 3, 5 or an ATS 3 or 4. I'm especially looking for the MTR 3 or 5.

I'd also be willing to throw in a few dollars into a trade.

73,

Rob, W3DX

18312. RE: [AT_Sprint] Digest Number 3253

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-09 02:20:44 UTC
From: Carey, George
Topic: 18312 Message: 18312

Hi Steve, what are you asking for the mtr 5b?

George
N9DXP

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@...m>
Sent: Monday, January 8, 2018 8:16:03 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Digest Number 3253

[Yahoo! Groups] <https://groups.yahoo.com/neo;_ylc=X3oDMTJlbzNhbWZxBF9TAzk3MzU5NzE1BGdycEl
kAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDZnRyBHNsawNnZnAEc3RpbWUDMTUxNTQ2NDE2Mw-->
AT Sprint Group <https://groups.yahoo.com/neo/groups/AT_Sprint/info;_ylc=X3oDMTJlMHY1ZG8zB
F9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDaGRyBHNsawNocGgEc3RpbWU
DMTUxNTQ2NDE2Mw-->
2 Messages
Digest #3253
1a
Trade a built SodaPop for unbuilt MTR 2, 3, 5 or ATS kit by heathkitguy
1b
Re: Trade a built SodaPop for unbuilt MTR 2, 3, 5 or ATS kit by "Steve Saslow" steve_saslow

Messages
1a
Trade a built SodaPop for unbuilt MTR 2, 3, 5 or ATS kit <https://groups.yahoo.com/neo/gro
ups/AT_Sprint/conversations/topics/18310;_ylc=X3oDMTJzZjJtdHZwBF9TAzk3MzU5NzE1BGdycElkAzE4
MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxODMxMARzZWMDZG1zZwRzbGsDdm1zZwRzdGltZQMxNTE1ND
Y0MTYz>
Mon Jan 8, 2018 8:49 am (PST) . Posted by:
heathkitguy <mailto:W3DX@aol.com?subject=Re%3A%20Trade%20a%20built%20SodaPop%20for%20unbui
lt%20MTR%202%2C%203%2C%205%20or%20ATS%20kit>
Hi Guys:

I just built my SodaPop radio and am looking for another kit to build. I'm looking to trade the SodaPop for one of Steve's other radios in kit form. It could be a Mountain Topper 2, 3, 5 or an ATS 3 or 4. I'm especially looking for the MTR 3 or 5.

I'd also be willing to throw in a few dollars into a trade.

73,

Rob, W3DX
Reply to sender <mailto:W3DX@...?subject=Re%3A%20Trade%20a%20built%20SodaPop%20for%20unbui
lt%20MTR%202%2C%203%2C%205%20or%20ATS%20kit> . Reply to group <mailto:AT_Sprint@yahoogroup
s.com?subject=Re%3A%20Trade%20a%20built%20SodaPop%20for%20unbuilt%20MTR%202%2C%203%2C%205%
20or%20ATS%20kit> . Reply via Web Post <https://groups.yahoo.com/neo/groups/AT_Sprint/conv
ersations/messages/18310;_ylc=X3oDMTJzOGRrYXBvBF9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNw

SWQDMTcwNTA2MzEwOARtc2dJZAMxODMxMARzZWMDZG1zZwRzbGsDcnBseQRzdGltZQMxNTE1NDY0MTYz?act=reply&messageNum=18310> . All Messages (2) <https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/topics/18310;_ylc=X3oDMTM4MjRucmo0BF9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxODMxMARzZWMDZG1zZwRzbGsDdnRwYwRzdGltZQMxNTE1NDY0MTYzBHRwY0lkAzE4MzEw> . Top ^
1b
Re: Trade a built SodaPop for unbuilt MTR 2, 3, 5 or ATS kit <https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/topics/18311;_ylc=X3oDMTJzYzByNnJqBF9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxODMxMQRzZWMDZG1zZwRzbGsDdm1zZwRzdGltZQMxNTE1NDY0MTYz>
Mon Jan 8, 2018 9:50 am (PST) . Posted by:
"Steve Saslow" steve_saslow <mailto:k7ew@...?subject=Re%3A%20Trade%20a%20built%20SodaPop%20for%20unbuilt%20MTR%202%2C%203%2C%205%20or%20ATS%20kit>
Hello! I have an MTR 5B unbuilt, all in its original and nearly all unopened/as-received packaging, plus the case LnR made for it. I think I printed out the construction and operating instructions, too. Am seriously considering selling it; I did build a SodaPop and am pretty happy with it, and do not want to get another - - it was quite a process to make an appropriate and decent case for it, for me...

73 HNY

-Steve Saslow k7ew Portland OR

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of W3DX@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Monday, January 8, 2018 8:44 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Trade a built SodaPop for unbuilt MTR 2, 3, 5 or ATS kit

Hi Guys:

I just built my SodaPop radio and am looking for another kit to build. I'm looking to trade the SodaPop for one of Steve's other radios in kit form. It could be a Mountain Topper 2, 3, 5 or an ATS 3 or 4. I'm especially looking for the MTR 3 or 5.

I'd also be willing to throw in a few dollars into a trade.

73,

Rob, W3DX

Reply to sender <mailto:k7ew@...?subject=Re%3A%20Trade%20a%20built%20SodaPop%20for%20unbuilt%20MTR%202%2C%203%2C%205%20or%20ATS%20kit> . Reply to group <mailto:AT_Sprint@yahoogroups.com?subject=Re%3A%20Trade%20a%20built%20SodaPop%20for%20unbuilt%20MTR%202%2C%203%2C%205%20or%20ATS%20kit> . Reply via Web Post <https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/messages/18311;_ylc=X3oDMTJzdHM5bzNiBF9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxODMxMQRzZWMDZG1zZwRzbGsDcnBseQRzdGltZQMxNTE1NDY0MTYz?act=reply&messageNum=18311> . All Messages (2) <https://groups.yahoo.com/neo/groups/AT_Sprint/conversations/topics/18310;_ylc=X3oDMTM4YjhvOTQzBF9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARtc2dJZAMxODMxMQRzZWMDZG1zZwRzbGsDdnRwYwRzdGltZQMxNTE1NDY0MTYzBHRwY0lkAzE4MzEw> . Top ^
Visit Your Group<https://groups.yahoo.com/neo/groups/AT_Sprint/info;_ylc=X3oDMTJmam9mYWZhB

F9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2Z2hwBHN0aW1lAzE1MTU0NjQxNjM->

* New Members<https://groups.yahoo.com/neo/groups/AT_Sprint/members/all;_ylc=X3oDMTJnOTM5aTI0BF9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDdnRsBHNsawN2bWJycwRzdGltZQMxNTE1NDY0MTYz> 3

[Yahoo! Groups]<https://groups.yahoo.com/neo;_ylc=X3oDMTJlbzNhbWZxBF9TAzk3MzU5NzE1BGdycElkAzE4MDM1NzIzBGdycHNwSWQDMTcwNTA2MzEwOARzZWMDZnRyBHNsawNnZnAEc3RpbWUDMTUxNTQ2NDE2Mw-->
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18313. Re: [AT_Sprint] Trade a built SodaPop for unbuilt MTR 2, 3, 5 or ATS kit

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-09 02:24:18 UTC
From: gcarey@...
Topic: 18310 Message: 18313

Hi Steve, what are you asking for the mtr 5b?

George
N9DXP

18314. Re: ATS3

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-09 14:49:47 UTC
From: gary.video@...
Topic: 18297 Message: 18314

Jeff,

May I suggest that you construct your own paddle. I've been using a simple iambic paddle that I hold in one hand so it can be used while hunkered down in my sleeping bag, while walking or even while riding a bike. Just use any cylindrical housing that fits comfortably in your hand (I used a couple 35mm film canisters) and mount a couple push buttons for the key contacts. I'll be curious to see what you think. You can see an example of my key in this YouTube link. Since I write with my left hand I can hold the key in my right hand and make notes while I operate and never have to put down the key or the pen.
https://www.youtube.com/watch?v=Plm1h_IG3ck https://www.youtube.com/watch?v=Plm1h_IG3ck

73,
Gary, KC8UD

18315. Re: [AT_Sprint] tinySWR indicator by DK3IT

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-10 02:34:51 UTC
From: ohwenzelph@...
Topic: 18301 Message: 18315

From mouser Yellow 604-WP710A10LYD (or if you prefer green, 604-WP710A10LGD) with 3 red 604-WP710A10LID have worked well with this board for me.

[I got some L-934LID from LittleDiode.com in the UK, I cannot distinguish them from the mouser red leds above]

I used a 841-BAT46GWJ for D3
833-BZV55C3V3-TP for D2
858-23BR1KLFTR for R2
720-LSM67K-H2L1-1-Z for D1

Winding that little toroid with 32 g wire is tough, took me a few tries

18316. Re: [AT_Sprint] tinySWR indicator by DK3IT

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-10 05:04:05 UTC
From: MOB
Topic: 18301 Message: 18316

Thanks very much for the part numbers. It will be a great help. I'm looking forward to building a couple of these.

72,
Michael KD4SGN

On 1/9/2018 9:34 PM, ohwenzelph@... [AT_Sprint] wrote:
>
>
> >From mouser
> Yellow 604-WP710A10LYD (or if you prefer green, 604-WP710A10LGD)
> with 3 red 604-WP710A10LID have worked well with this board for me.
>
> [I got some L-934LID from LittleDiode.com in the UK, I cannot
> distinguish them from the mouser red leds above]
>
> I used a 841-BAT46GWJ for D3
> 833-BZV55C3V3-TP for D2
> 858-23BR1KLFTR for R2
> 720-LSM67K-H2L1-1-Z for D1
>
> Winding that little toroid with 32 g wire is tough, took me a few tries
>
>
>

18317. RE: [AT_Sprint] tinySWR indicator by DK3IT

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-10 14:26:12 UTC
From: Fred Maas
Topic: 18301 Message: 18317

Note that I used #30 wire, the number of windings (just) fits and it works as expected.

Yesterday I used an antenna which I tuned carefully with the SWR bridge in an Elecraft K2, then took to the field and used with my MTR3. For the first time, I had an SWR indication, and it was very much less than perfect.

Today I set up in the field but used a short counterpoise with my MTR3. Everything else was the same. This time SWR was perfect!

An EFHW doesn't need much for a counterpoise, while the case of the K2 was enough, the case of the little MTR3 wasn't. The tinySWR made it possible to notice!

73, fred kt5x

From: AT_Sprint@yahoogroups.com [mailto:AT_Sprint@yahoogroups.com]
Sent: Tuesday, January 09, 2018 7:35 PM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] tinySWR indicator by DK3IT

From mouser

Yellow 604-WP710A10LYD (or if you prefer green, 604-WP710A10LGD)

with 3 red 604-WP710A10LID have worked well with this board for me.

[I got some L-934LID from LittleDiode.com in the UK, I cannot distinguish them from the mouser red leds above]

I used a 841-BAT46GWJ for D3

833-BZV55C3V3-TP for D2

858-23BR1KLFTR for R2

720-LSM67K-H2L1-1-Z for D1

Winding that little toroid with 32 g wire is tough, took me a few tries

18318. FS: Weber Tribander

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-10 19:43:55 UTC
From: WA0ITP
Topic: 18318 Message: 18318
Attachments: 4 described; binary payloads are missing from this source WARC

GA all,

I'm making room for more rigs and wish to sell my Tribander (80M, 40M, 30M) transceiver. As all on this list know, it's a FB rig for all portable ops, or on the bench at home. Being so small and lightweight, it is especially suited to SOTA ops. It has many nice operating features, including the 3 bands as well as a digital display, a menu full of options, built in keyer, and a Power Pole connector.

This one came from Paul Smith, N0NBD, and the enclosure was last opened by Steve Weber when he performed an alignment for Paul. Pacific Antennas still sells the kit, for more info Click here for their web page. <http://www.qrpkits.com/tribander.html> Cosmetically it's a 9 out of 10, just a few very minor smudges

I have made several QSOs with it and it performs quite well - sensitive and selective receiver, and a solid 4W output power. Paul made many QSOs with it as well, and only sold it to me to make room for his KX2.

Asking $225 and will guarantee it 100% If you aren't happy with it after a coupla days let me know, return it in good condx, and I'll refund the full price.   Paypal "Send Money" option preferred.

Thanks for considering. Pictures attached.

--
72 WAØITP
Back to the bench, Winter is too valuable to waste.
I love this radio stuff.
www.wa0itp.com
www.4sqrp.com

18319. Re: [AT_Sprint] MTR-5B 80m group parts buy - next to last update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-10 19:48:09 UTC
From: Steve Saslow
Topic: 15390 Message: 18319

Hello Shirley! Can you PLEASE help me! ? I cannot find my record of what I paid for my MTR-5B kit, which I bought from Steve KD1JV in the summer of 2015.

Can you please tell me what they cost?

Thank you!

Steve Saslow k7ew Portland OR

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Shirley Márquez Dúlcey mark@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Monday, August 3, 2015 7:46 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] MTR-5B 80m group parts buy - next to last update

If you are on the list, you should have just received a direct email confirming your status. If you're not, there is still time; I will close the list at midnight. We now have 23 people who want the parts, including me. AA9OF appeared in an earlier list; that was a typo and should have been AA1OF.

For those of you who were away for the weekend and missed this whole thread, I'm doing a group buy of the parts needed to include the 80 meter band in your MTR-5B. I already posted a spreadsheet that shows the component values for all the possible band combinations; you can read or download it at https://drive.google.com/file/d/0B2g2QEH6RJ50a253YU1KeW9pX1E/view?usp=sharing

Here is the list of participants so far:

DL2ARL
AA1OF
K1RSA
KC1ADO
KE1L
KE1LY
N1RX
NG1P
W1DRY
W2CTX
W2KJ
AC4EH
AJ4VF
KE4RG
KI4GHT
WA5YKK

K7EW
N7WM
NS8H
W9YA
AD0KI
NU0V
WA0YMH

The good news is that you all get to save a bit of money. Now that I'm up to ordering everything in at least 25 quantity the component prices go down, so the price is now $1.50 plus $1 for shipping and packaging ($2.50 total). (That's to US addresses. DX is extra, and will be determined once I have the parts in hand because I will need to weigh the final package. It will certainly be under an ounce but it might be over half an ounce; that distinction doesn't matter for US addresses.) In case you're all wondering, I will order a couple of extras of everything, and that leaves a bit of margin so I can afford to replace the kit that will inevitably be eaten by the Postal Service.

I will send out the final notice late tonight (after midnight), both directly and on-list. The direct copies will include payment info. Payment will be either by PayPal or by sending me a check. DX is PayPal only unless you can send me a check in US dollars issued by a US bank; the fees that banks here charge to clear non-US checks are prohibitive.

One additional delivery option is available. If you are going to Boxboro and can wait that long to get your parts, you can pick them up there during the NEQRP forum with no delivery charge. But I suspect you'll all want to have them earlier so you can build your MTR-5B in time to show off at the convention!

18320. Re: [AT_Sprint] MTR-5B 80m group parts buy - next to last update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-10 20:12:08 UTC
From: Steve Saslow
Topic: 15390 Message: 18320

Can anyone PLEASE help me with this? I'd just like to find out simply and accurately the cost of that kit (MTR-5B, without case) at that time, probably spring-summer of 2015

Please and Thank you!

Steve k7ew

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Steve Saslow k7ew@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Wednesday, January 10, 2018 11:48 AM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] MTR-5B 80m group parts buy - next to last update

Hello Shirley! Can you PLEASE help me! ? I cannot find my record of what I paid for my MTR-5B kit, which I bought from Steve KD1JV in the summer of 2015.

Can you please tell me what they cost?

Thank you!

Steve Saslow k7ew Portland OR

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Shirley Márquez Dúlcey mark@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Monday, August 3, 2015 7:46 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] MTR-5B 80m group parts buy - next to last update

18321. Re: [AT_Sprint] FS: Weber Tribander - Sold

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-10 20:17:25 UTC
From: WA0ITP
Topic: 18321 Message: 18321

WoW! That was fast.

The Tribander has been sold pending receipt of funds.

72 WAØITP
Back to the bench, Winter is too valuable to waste.
I love this radio stuff.
www.wa0itp.com
www.4sqrp.com

On 1/10/2018 1:43 PM, WA0ITP wa0itp@... [AT_Sprint] wrote:
>
>
> GA all,
>
> I'm making room for more rigs and wish to sell my Tribander (80M, 40M,
> 30M) transceiver. As all on this list know, it's a FB rig for all
> portable ops, or on the bench at home. Being so small and lightweight,
> it is especially suited to SOTA ops. It has many nice operating
> features, including the 3 bands as well as a digital display, a menu
> full of options, built in keyer, and a Power Pole connector.
>
> This one came from Paul Smith, N0NBD, and the enclosure was last
> opened by Steve Weber when he performed an alignment for Paul. Pacific
> Antennas still sells the kit, for more info Click here for their web
> page. <http://www.qrpkits.com/tribander.html> Cosmetically it's a 9
> out of 10, just a few very minor smudges
>
> I have made several QSOs with it and it performs quite well -
> sensitive and selective receiver, and a solid 4W output power. Paul
> made many QSOs with it as well, and only sold it to me to make room
> for his KX2.
>
> Asking $225 and will guarantee it 100% If you aren't happy with it
> after a coupla days let me know, return it in good condx, and I'll
> refund the full price.   Paypal "Send Money" option preferred.
>
> Thanks for considering. Pictures attached.
> --
> 72 WAØITP
> Back to the bench, Winter is too valuable to waste.
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>
>

>

18322. Re: [AT_Sprint] FS: Weber Tribander - Sold

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-10 20:22:40 UTC
From: yvon@...
Topic: 18321 Message: 18322

too bad.
I have a 40, 30, 20 kit but don't have the time to assemble it.

73, Yvon nu6i

On January 10, 2018 at 12:17 PM "WA0ITP wa0itp@... [AT_Sprint]" wrote:

WoW! That was fast.

The Tribander has been sold pending receipt of funds.

72 WAØITP
Back to the bench, Winter is too valuable to waste.
I love this radio stuff.
www.wa0itp.com (http://www.wa0itp.com)
www.4sqrp.com (http://www.4sqrp.com)

On 1/10/2018 1:43 PM, WA0ITP wa0itp@... [AT_Sprint] wrote:

GA all,

I'm making room for more rigs and wish to sell my Tribander (80M, 40M, 30M) transceiver. As all on this list know, it's a FB rig for all portable ops, or on the bench at home. Being so small and lightweight, it is especially suited to SOTA ops. It has many nice operating features, including the 3 bands as well as a digital display, a menu full of options, built in keyer, and a Power Pole connector.

This one came from Paul Smith, N0NBD, and the enclosure was last opened by Steve Weber when he performed an alignment for Paul. Pacific Antennas still sells the kit, for more info Click here for their web page. (http://www.qrpkits.com/tribander.html) Cosmetically it's a 9 out of 10, just a few very minor smudges

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Asking $225 and will guarantee it 100% If you aren't happy with it after a coupla days let me know, return it in good condx, and I'll refund the full price. Paypal "Send Money" option preferred.

Thanks for considering. Pictures attached.
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Back to the bench, Winter is too valuable to waste.
I love this radio stuff.
www.wa0itp.com (http://www.wa0itp.com)
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18323. Re: [AT_Sprint] MTR-5B 80m group parts buy - next to last update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-12 18:35:07 UTC
From: Mike Dooley
Topic: 15390 Message: 18323

Hi Steve,
You may have done this, but I had a look in the AT_Sprint group. I found mention of $165 by Steve in Aprill 2016 (second run price?) and an earlier mention in Sept 2015 of $172 shipped by someone who was selling their unbuilt kit. My guess would be $165.
Hope this helps.
MikeN5BGZ

From: "Steve Saslow k7ew@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>
To: "AT_Sprint@yahoogroups.com" <AT_Sprint@yahoogroups.com>; Dale Putnam WC7S <daleputnam@...>
Sent: Wednesday, January 10, 2018 2:17 PM
Subject: Re: [AT_Sprint] MTR-5B 80m group parts buy - next to last update

  Can anyone PLEASE help me with this? I'd just like to find out simply and accurately the cost of that kit (MTR-5B, without case) at that time, probably spring-summer of 2015Please and Thank you!Steve k7ew

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Steve Saslow k7ew@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Wednesday, January 10, 2018 11:48 AM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] MTR-5B 80m group parts buy - next to last update Hello Shirley! Can you PLEASE help me! ?   I cannot find my record of what I paid for my MTR-5B kit, which I bought from Steve KD1JV in the summer of 2015.   Can you please tell me what they cost?Thank you!Steve Saslow k7ew   Portland OR

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Shirley Márquez Dúlcey mark@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Monday, August 3, 2015 7:46 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] MTR-5B 80m group parts buy - next to last update

18324. Re: [AT_Sprint] MTR-5B 80m group parts buy - next to last update

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-13 19:24:08 UTC
From: Steve Saslow
Topic: 15390 Message: 18324

Ah! Thank you for the suggestion and message, Mike! It does help!

Appreciated!

-Steve k7ew

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Mike Dooley msdooley@yahoo.com [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Friday, January 12, 2018 10:35 AM
To: AT_Sprint@yahoogroups.com; Dale Putnam WC7S
Subject: Re: [AT_Sprint] MTR-5B 80m group parts buy - next to last update

Hi Steve,

You may have done this, but I had a look in the AT_Sprint group. I found mention of $165 by Steve in Aprill 2016 (second run price?) and an earlier mention in Sept 2015 of $172 shipped by someone who was selling their unbuilt kit. My guess would be $165.

Hope this helps.

Mike
N5BGZ

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Sent: Monday, August 3, 2015 7:46 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] MTR-5B 80m group parts buy - next to last update

18325. ats4 HELP PLEASE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-14 01:58:57 UTC
From: jddavidson72@...
Topic: 18325 Message: 18325

has any one had a problem with the 15 meter band jumping to 17 meters . i can run it back to 15 but when i change bands it goes back to 17 this has been a real qrp rig for me .. + it wont txmt. on 17

18326. Re: [AT_Sprint] ats4 HELP PLEASE

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-14 03:50:32 UTC
From: Dale Putnam
Topic: 18325 Message: 18326

check the soldering real close on the band select resistors.. or simply reflow the 15m one

Have a great day,
--... ...-- Dale - WC7S in Wy

"Actions speak louder than words"
1856 - Abraham Lincoln

_____
From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of jddavidson72@...
[AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Saturday, January 13, 2018 6:58 PM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] ats4 HELP PLEASE

has any one had a problem with the 15 meter band jumping to 17 meters . i can run it back to 15 but when i change bands it goes back to 17 this has been a real qrp rig for me .. + it wont txmt. on 17

18328. Re: [AT_Sprint] MTR-3B Replacement IC

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-18 14:16:25 UTC
From: Joe Street
Topic: 18328 Message: 18328

Did you mean the LM4808? <http://www.ti.com/product/LM4808>

On Thu, Jan 18, 2018 at 4:32 AM, Peter Cosway petercosway@...
[AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

>
>
>
> Can anyone tell me where I can buy a LM1808M. It does not seem to be
> listed by the usual internet sources.
> 73 Peter VK3DU
>
>
>

18329. RE: [AT_Sprint] MTR-3B Replacement IC

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-18 14:06:46 UTC
From: Trevor Jacobs
Topic: 18328 Message: 18329

The LM1808 is obsolete, but you could probably find the equivalent NTE826. Looks like an AF ampliier for TVs? Looks like they're about $5.32 USD Wholesale Electronics, Inc. www.weisd.com I'd check ebay as well. 73 es God bless de Trev K6ESE

-------- Original message --------
From: "Peter Cosway petercosway@yahoo.com.au [AT_Sprint]"
Date:01/18/2018 3:32 AM (GMT-06:00)
To: AT_Sprint@yahoogroups.com
Cc:
Subject: [AT_Sprint] MTR-3B Replacement IC

Can anyone tell me where I can buy a LM1808M. It does not seem to be listed by the usual internet sources. 73 Peter VK3DU

18330. RE: [AT_Sprint] MTR-3B Replacement IC

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-18 14:43:53 UTC
From: Steven Weber
Topic: 18328 Message: 18330
Attachments: 1 described; binary payloads are missing from this source WARC

LM4808 is the correct part number and is still available.
Steve KD1JV

Did you mean the LM4808?

On Thu, Jan 18, 2018 at 4:32 AM, Peter Cosway petercosway@... [AT_Sprint]
<AT_Sprint@yahoogroups.com> wrote:

Can anyone tell me where I can buy a LM1808M. It does not seem to be listed by the usual internet sources.
73 Peter VK3DU

This email has been checked for viruses by AVG.
http://www.avg.com

18331. Re: MTR-3B Replacement IC

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-19 16:37:46 UTC
From: Alexey Yermolayev
Topic: 18328 Message: 18331
Attachments: 1 described; binary payloads are missing from this source WARC

it must be LM4808
You can buy it from DigiKey
Or you can find analog IC in old CD-ROM
We used APA2308 and another one (i don't remember) in our MTR Arduino based clone
Processed cheese Radio

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| |
Processed cheese Radio
MTR-A scheme based radio http://uarl.info/forum/index.php?topic=162.0 | |

|

|

18332. FS: Some Weber kits

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-22 16:18:44 UTC
From: k5mgj@...
Topic: 18332 Message: 18332

On seeing the tri-bander sale - I looked into my stash of unbuilt kits and found the following that are excess to my wants/needs:

Weber NADC 40m Kit w/ Digital Dial ($100 includes shipping CONUS):
http://www.qrpkits.com/nadc.html http://www.qrpkits.com/nadc.html

Weber ATiny 26L SWR/Power meter kit, pre 4sqrp version ($25 includes shipping CONUS)
http://www.4sqrp.com/PwrSwr.php http://www.4sqrp.com/PwrSwr.php

NORCAL FCC-1 kit (not a Weber kit, $ $25 includes shipping CONUS)
http://www.norcalqrp.org/fcc1.htm http://www.norcalqrp.org/fcc1.htm

I also have Steve's Frankenkeyer - built w/documentation - but I'm reluctant to sell it - make a really, really good offer and I might let it be pried from my grumpy clutches... It's a keyer with 4 memories, clock (needs sidekick battery), voltmeter and frequency counter - all CW annunciated. It's meant to be installed into a rig.

73
Mark
K5MGJ
http://www.qrpkits.com/nadc.html http://www.norcalqrp.org/fcc1.htm

18333. Re: [AT_Sprint] FS: Some Weber kits

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-22 19:16:57 UTC
From: Shawn Reed
Topic: 18332 Message: 18333

NORCAL FCC-1 kit (not a Weber kit, $ $25 includes shipping CONUS)

I would like to buy the FCC-1 from you, please. 73, Shawnr. kf7yff.

On Mon, 1/22/18, k5mgj@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

Subject: [AT_Sprint] FS: Some Weber kits
To: AT_Sprint@yahoogroups.com
Date: Monday, January 22, 2018, 8:18 AM

On seeing the tri-bander sale - I
looked into my stash of unbuilt kits and found the following
that are excess to my
wants/needs:
Weber NADC 40m Kit w/ Digital Dial
($100 includes shipping CONUS):http://www.qrpkits.com/nadc.html
Weber ATiny 26L SWR/Power meter kit,
pre 4sqrp version ($25 includes shipping CONUS)http://www.4sqrp.com/PwrSwr.php
NORCAL FCC-1 kit (not a Weber kit, $
$25 includes shipping CONUS)http://www.norcalqrp.org/fcc1.htm
I also have Steve's Frankenkeyer
- built w/documentation - but I'm reluctant to sell it -
make a really, really good offer and I might let it be pried
from my grumpy clutches...It's a keyer with 4
memories, clock (needs sidekick battery), voltmeter and
frequency counter - all CW annunciated. It's meant to be
installed into a rig.
73MarkK5MGJ

18334. Re: [AT_Sprint] FS: Some Weber kits

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-22 19:21:15 UTC
From: Shawn Reed
Topic: 18332 Message: 18334

Or, may I say, all three kits ! Shawnr, kf7yff.

On Mon, 1/22/18, k5mgj@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:

Subject: [AT_Sprint] FS: Some Weber kits
To: AT_Sprint@yahoogroups.com
Date: Monday, January 22, 2018, 8:18 AM

On seeing the tri-bander sale - I
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that are excess to my
wants/needs:
Weber NADC 40m Kit w/ Digital Dial
($100 includes shipping CONUS):http://www.qrpkits.com/nadc.html
Weber ATiny 26L SWR/Power meter kit,
pre 4sqrp version ($25 includes shipping CONUS)http://www.4sqrp.com/PwrSwr.php
NORCAL FCC-1 kit (not a Weber kit, $
$25 includes shipping CONUS)http://www.norcalqrp.org/fcc1.htm
I also have Steve's Frankenkeyer
- built w/documentation - but I'm reluctant to sell it -
make a really, really good offer and I might let it be pried
from my grumpy clutches...It's a keyer with 4
memories, clock (needs sidekick battery), voltmeter and
frequency counter - all CW annunciated. It's meant to be
installed into a rig.
73MarkK5MGJ

18335. Re: FS: Some Weber kits

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-22 20:00:39 UTC
From: k5mgj@...
Topic: 18332 Message: 18335

OK, please contact me off list at k5mgj@yah**.com and we'll settle up.

73
Mark

18336. Re: [AT_Sprint] Re: FS: Some Weber kits

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-22 20:12:59 UTC
From: James Shipley
Topic: 18332 Message: 18336

Is the Weber ATiny 26L SWR/Power meter kit, still available?

James

On Jan 22, 2018 3:06 PM, "k5mgj@... [AT_Sprint]" <
AT_Sprint@...m> wrote:

>
>
> OK, please contact me off list at k5mgj@yah**.com and we'll settle up.
>
> 73
> Mark
>
>

18337. Re: [AT_Sprint] Re: FS: Some Weber kits

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-22 21:27:34 UTC
From: k5mgj@...
Topic: 18332 Message: 18337

The three kits listed have been sold. Thanks for the bandwidth!

73
Mark
K5MGJ

18338. Message "8" on MTR-3B 40-30-20m at power-up time?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-23 16:23:24 UTC
From: Martin Hepp
Topic: 18338 Message: 18338

Hi all,

occasionally, my MTR-3B (LNR Precision version, ca. 10/2016) displays "8" when powering on, and does not seem to work.

Does anybody have an idea what the cause of this may be?

My suspicion is that the microprocessor thinks I selected 80m by means of the first sliding switch (e.g. due to a problem with the resistors indicating the chosen band).

Turning the rig on and off a couple of times solved the problem. Power supply was 9 and 11.8 V.

Thanks!

Best wishes

Martin, DK3IT

18339. TinySOTA station based on MTR 3B

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-23 16:33:23 UTC
From: Martin Hepp
Topic: 18339 Message: 18339
Attachments: 3 described; binary payloads are missing from this source WARC

Dear all:

Over the course of the past months, I designed an all-in one, ready-to-go station for SOTA and other outdoor activities based on the MTR-3B.

It is a Mountain Topper 3-bander PCB plus

• 2 cells of 1000 mAh Lipo batteries
• a DC-DC step-up converter with input and output filters for getting 9 and 12 V out of the 2S batteries (https://github.com/mfhepp/gobox-power with a 6.2V zener diode and 470 R instead of 220 R for the resistors for the LEDs),
• the TinySWR indicator (https://github.com/mfhepp/tinyswr),
• a volume control,
• the USB-powered 2S balanced Lipo charger from http://www.modmaker.co.uk/Micro-USB-2S-Balance-Charger3, and
• a Palm Pico Single paddle.

All is mounted to a custom-milled and printed front panel that fits into a Peli 1010 enclosure, which is robust and watertight.

The total weight is 329 g including battery, charger, paddle and a retractable earphone. The battery should allow for 2 - 3 hrs of SOTA activity, and the output power will be a stable 3 or 5 W thanks to the DC-DC boost converter.

Attached, please find a few pictures.

I will soon set up a GitHub projects with all files necessary to build such a station.

Please feel free to ask have any questions.

73 de Martin, DK3IT

18340. Re: [AT_Sprint] Message "8" on MTR-3B 40-30-20m at power-up time?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-23 17:37:24 UTC
From: Steve Saslow
Topic: 18338 Message: 18340

Greetings, Martin! I had a similar problem. although not exactly the same, with one of the same group of KD1JV MTR kits, reading 8 on the 40m band, but 3 for 30m and 2 for 20m=fine. Steve Weber's advice was very helpful: the indicating resistor I used turned out to be a borderline value for the correct indication, and when "confused" the processor would default for the display to show 8 (as in 80m, I think).

For each band, Martin, there is a range of indicator resistor values, I learned. So, I got several different ones and carefully tried them, and selected one which seemed to be in the missile of that range, and installed it. [And after all, what the value of a particular resistor actually is, may not be what its color stripes or numbers etc are saying! sometimes I wonder if we have to measure each unit!] This resulted in the "8" problem going away, 4 showing on start-up, or 3 or 2 depending on the band selected before switching on...etc. Hooray!

But! If the correct band number comes up, and the rig still does not seem to work, or if that 8 still comes up: a different issue/problem!

Since you mentioned switching the rig on-off a few times, then=OK .... Is there something a little wrong with the switches or their contacts? -maybe: a careful re-flow(re-solder)?

Best Wishes, Martin! I hope this will help! And! - I definitely am admiring the work you did to make your beautiful MTR-3B SOTA arrangement/"outfit" as one of your nearby/recent posts shows! Wow! A lot of care, thought, skills and hours and patience have pretty clearly gone into this - - imho it is an outstanding result!

Sincerely, Steve Saslow k7ew Portland OR usa

From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Martin Hepp mfhepp@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Tuesday, January 23, 2018 8:23 AM
To: AT_Sprint@yahoogroups.com
Subject: [AT_Sprint] Message "8" on MTR-3B 40-30-20m at power-up time?

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Does anybody have an idea what the cause of this may be?

My suspicion is that the microprocessor thinks I selected 80m by means of the first sliding switch (e.g. due to a problem with the resistors indicating the chosen band).

Turning the rig on and off a couple of times solved the problem. Power supply was 9 and 11.8 V.

Thanks!

Best wishes

Martin, DK3IT

18341. Re: [AT_Sprint] Message "8" on MTR-3B 40-30-20m at power-up time?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-23 17:41:14 UTC
From: Steve Saslow
Topic: 18338 Message: 18341

error typo, Martin! second line of the 2nd paragraph: should say "...in the middle of that range..." not "missile"! ugh! sorry!

---Steve k7ew

From: Steve Saslow <k7ew@...>
Sent: Tuesday, January 23, 2018 9:37 AM
To: AT_Sprint@yahoogroups.com
Subject: Re: [AT_Sprint] Message "8" on MTR-3B 40-30-20m at power-up time?

Greetings, Martin! I had a similar problem. although not exactly the same, with one of the same group of KD1JV MTR kits, reading 8 on the 40m band, but 3 for 30m and 2 for 20m=fine. Steve Weber's advice was very helpful: the indicating resistor I used turned out to be a borderline value for the correct indication, and when "confused" the processor would default for the display to show 8 (as in 80m, I think).

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From: AT_Sprint@yahoogroups.com <AT_Sprint@yahoogroups.com> on behalf of Martin Hepp mfhepp@... [AT_Sprint] <AT_Sprint@yahoogroups.com>
Sent: Tuesday, January 23, 2018 8:23 AM
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Thanks!

Best wishes

Martin, DK3IT

18342. RE: [AT_Sprint] Message "8" on MTR-3B 40-30-20m at power-up time?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-23 17:57:03 UTC
From: Steven Weber
Topic: 18338 Message: 18342

The switch might be getting a little dirty, try spraying is some contact cleaner. I find WD40 works well for that.
Steve KD1JV

Hi all,

occasionally, my MTR-3B (LNR Precision version, ca. 10/2016) displays "8" when powering on, and does not seem to work.

Does anybody have an idea what the cause of this may be?

My suspicion is that the microprocessor thinks I selected 80m by means of the first sliding switch (e.g. due to a problem with the resistors indicating the chosen band).

Turning the rig on and off a couple of times solved the problem. Power supply was 9 and 11.8 V.

Thanks!

Best wishes

Martin, DK3IT

Posted by: Martin Hepp <mfhepp@...>

Yahoo Groups Links

This email has been checked for viruses by AVG.
http://www.avg.com

18343. Re: [AT_Sprint] PCB Layout Files of MTR-3B (LNR Version)

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-23 18:57:36 UTC
From: Martin Hepp
Topic: 18244 Message: 18343
Attachments: 1 described; binary payloads are missing from this source WARC

Dear Steve, all:
Mni thanks es sri fer late reply!

In the end, I removed the reverse polarity protection mosfet and replaced it with a new one, tilted by ca. 30 degree, and adding two wires with insulation in between. The wire from the PCB goes into the DC-DC boost converter input, and the one soldered directly to the input of the new mosfet (the big pin at the top of the footprint) is connected to the output of the DC-DC converter. I put a heat-shrink tube around the mosfet and used liquid tape to fix the wires to the PCB as a strain relief.

Again, mni tnx!

73 de Martin, DK3IT

> On 14 Nov 2017, at 17:42, Steven Weber steve.kd1jv@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
>
> The easiest way to do that would be to remove the reverse polarity protection mosfet located below the on/off switch and tack the booster in there. Any other method would get messy.
>
>
>
> KD1JV
>
>
>
> Dear all:
>
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>
> I want to include a DC-DC boost converter into a new MTR-based project and would like to reuse the existing power switch. For that, however, I need to identify the best point for the respective mod. In the schematic, it will be either directly before or after the polarity protection circuit.
>
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>
> Are the images of the top and bottom layers of the PCB without components anywhere on the Web? I would like to understand the routing before fireing up the soldering iron ;-)
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>
> Mni tnx es 73 de Martin, DK3IT
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>

18344. Re: [AT_Sprint] Tiny SWR Indicator for MTR / ATS Rigs

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-23 19:04:24 UTC
From: Martin Hepp
Topic: 18243 Message: 18344

Hi,
sorry for my late reply to your question:

> On 15 Nov 2017, at 20:52, ohwenzelph@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> Looks interesting.
>
> The parts are not all exact matches and the LEDs in particular I am concerned about possibly not being close enough. I don’t have any FT23-43’s at hand but wonder if an FT37-43 could be substituted. 17 turns would give about the same inductance but I wonder if the ratio of 25 to one matters.

Yes, the ratio matters, and an FT-37 will not fit properly on the PCB. The FT23 is also available from Mouse, search for FairRite and filter by dimensions.

73 de Martin, DK3IT

18345. Re: [AT_Sprint] Tiny SWR Indicator for MTR / ATS Rigs

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-23 21:02:51 UTC
From: jer terez
Topic: 18243 Message: 18345

thanks, i got some FT23-43’s from Mouser and built all three boards

From: "Martin Hepp mfhepp@... [AT_Sprint]" <AT_Sprint@yahoogroups.com>
To: AT_Sprint@yahoogroups.com
Sent: Tuesday, January 23, 2018 11:28 AM
Subject: Re: [AT_Sprint] Tiny SWR Indicator for MTR / ATS Rigs

Hi,
sorry for my late reply to your question:

> On 15 Nov 2017, at 20:52, ohwenzelph@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
> Looks interesting.
>
> The parts are not all exact matches and the LEDs in particular I am concerned about possibly not being close enough. I don’t have any FT23-43’s at hand but wonder if an FT37-43 could be substituted. 17 turns would give about the same inductance but I wonder if the ratio of 25 to one matters.

Yes, the ratio matters, and an FT-37 will not fit properly on the PCB. The FT23 is also available from Mouse, search for FairRite and filter by dimensions.

73 de Martin, DK3IT

18346. SodaPop for Sale; Built

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-23 22:08:58 UTC
From: W3DX@...
Topic: 18346 Message: 18346

Hi Everyone:

I recently built a SodaPop, but don’t have any real use for it so am offering it for sale. I’m asking $150 (or best offer) including postage within the U.S., which is what I paid for it. (I didn’t get one of the original units, so had to buy it after the fact, which cost more than the original kit.)

Note, this is a board-only radio that didn’t come with a case. So it’s exactly as supplied by KD1JV, waiting for you to design an enclosure or SOTA station around it.

73,

Rob, W3DX

18347. Re: SodaPop for Sale; Built

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-23 23:08:05 UTC
From: W3DX@...
Topic: 18346 Message: 18347

Hi Guys: The SodaPop has sold. 73, W3DX

18348. Soda Pop 3D printed enclosure??

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-24 10:16:22 UTC
From: simon.jack68@...
Topic: 18348 Message: 18348

Hi all,

Is anyone aware of a design for a 3d printed enclosure for the soda pop?

Regards

Simon
VK3ELH

18349. RE: [AT_Sprint] Message "8" on MTR-3B 40-30-20m at power-up time?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-24 14:45:50 UTC
From: Fred Maas
Topic: 18338 Message: 18349

I can add that when I had a similar problem, it turned out that I had tack-soldered one side of the resistor and the other side of the resistor sat on its pad, making contact, but had been overlooked and not soldered, hence the connection was intermittent and slightly higher in resistance. When I found it by looking at it with a 10 power hand-lens, I was just shaking my head at myself for the next few days (maybe still am ;-)

- fred kt5x

Subject: Re: [AT_Sprint] Message "8" on MTR-3B 40-30-20m at power-up time?

error typo, Martin! second line of the 2nd paragraph: should say "...in the middle of that range..." not "missile"! ugh! sorry!

---Steve k7ew

18350. Re: [AT_Sprint] Message "8" on MTR-3B 40-30-20m at power-up time?

Yahoo group: AT_Sprint (2017 — 2018)
Date: 2018-01-25 08:54:40 UTC
From: Martin Hepp
Topic: 18338 Message: 18350

Thanks for your feedback!

Good to know that "8" it is the default when no switch contact is made. I had feared it was a self-test error or worse.

Sliding the switch back and forth a few times has solved the issue. I will maybe put a bit of "TUNER 600" spray in; this is a good one for sensitive contact cleaning:

http://uk.farnell.com/kontakt-chemie/tuner-600-200ml/cleaner-tuner-600-200ml/dp/800958

By the way, there are a few very agressive contact cleaners on the market which come from the old radio and TV repair age, when the technician just wanted to give an old device a few more years of operation, at the expense of final corrosion. When not removed after application, they damage the contacts. A typical example is "KONTAKT 60".

http://uk.farnell.com/kontakt-chemie/kontakt-60-400ml/cleaner-kontakt-60-400ml/dp/2142395

73 de Martin, DK3IT

> On 24 Jan 2018, at 15:45, 'Fred Maas' just.one.hill@... [AT_Sprint] <AT_Sprint@yahoogroups.com> wrote:
>
>
> I can add that when I had a similar problem, it turned out that I had tack-soldered one side of the resistor and the other side of the resistor sat on its pad, making contact, but had been overlooked and not soldered, hence the connection was intermittent and slightly higher in resistance. When I found it by looking at it with a 10 power hand-lens, I was just shaking my head at myself for the next few days (maybe still am ;-)
>
>
>
> - fred kt5x
>
>
>
> Subject: Re: [AT_Sprint] Message "8" on MTR-3B 40-30-20m at power-up time?
>
>
>
>
>
> error typo, Martin! second line of the 2nd paragraph: should say "...in the middle of that range..." not "missile"! ugh! sorry!
> ---Steve k7ew
>
>
>

>